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February 18, 2026

VIA Electronic Filing to the Office of Commission Clerk

Florida Public Service Commission
Office of Commission Clerk
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850
Attn: Daniel Dose, Senior Attorney

Re: Docket 20250047-WS – Petition for an acquisition adjustment for a non-viable utility, by CSWR-Florida Utility Operating Company, LLC.

Dear Mr. Dose:

CSWR-Florida Utility Operating Company, LLC ("CSWR-Florida") submits the following responses to Staff's January 27, 2026 First Data Request.

Please refer to CSWR-Florida Utility Operating Company, LLC (CSWR-FL or Utility) petition for an acquisition adjustment relating to its 2022 acquisition of the Sunshine Utilities of Central Florida, Inc. (Sunshine) water facilities for the following questions (Document No. 01877-2025, filed on March 14, 2025):

1. Please explain, with specificity, the rationale for paying above net book value for the acquired utility.

Response: When evaluating a system for potential acquisition, CSWR-Florida consults publicly available documents, such as Commission annual reports and available information from health and environmental regulators. It also conducts site visits to get a better understanding of the plant configuration and the condition of the equipment. A final purchase price is determined through arms-length negotiations between the parties, with CSWR Florida's ultimate objective being to pay the least amount that a utility/seller will accept.

In practice, utility owners frequently have economic incentives to retain ownership rather than sell at net book value. One such incentive is the ability to compensate themselves or earn other financial benefits as a result of ownership. As a result, CSWR-Florida has not encountered a utility owner willing to sell a system at net book value absent extraordinary circumstances, such as receivership. This experience is

consistent with CSWR-Florida's prior acquisitions in Florida, all of which were negotiated at prices above net book value.

In addition, CSWR-Florida believes that the net book values for many small utility systems may be artificially low due to the regulatory structure under which those systems operate. Specifically, under annual price index adjustment mechanisms, utility owners may have limited incentives to capitalize infrastructure investments that would otherwise be capitalized in a traditional rate case environment. Over time, this can result in systems with aging or inadequate infrastructure, significant deferred maintenance, and net book values that do not reflect the true replacement cost or operational condition of the assets used to provide service. Consequently, net book value may materially understate the economic value of the system as a going concern and does not serve as a reliable indicator of market value in an arm's-length transaction.

Accordingly, CSWR-Florida's acquisition prices are not based on net book value alone, but rather reflect system-specific factors, including physical condition, operational risks, anticipated capital investment requirements, and the outcome of arm's-length negotiations between independent parties. This approach is consistent with CSWR-Florida's prior acquisition filings and testimony before the Commission.

2. Please explain how the proposed acquisition, which reflects an acquisition premium over the net book value of the acquired utility, is reasonable and consistent with Section 366.03, Florida Statutes.

Response: Section 366.03, Florida Statutes, provides in part that "Each public utility shall furnish to each person applying therefore reasonably sufficient, adequate, and efficient service upon terms as required by the commission." Prior to acquisition of the water system by CSWR-Florida, the customers of the former Sunshine systems have not had service that is sufficient, adequate, or efficient. The Sunshine water systems were non-viable at the time of acquisition and were unable to provide and maintain safe, adequate and, reliable service and facilities to its customers. The water system was operated in such a technically deficient manner that it received numerous citations from FDEP for violations of regulations designed to ensure drinking water is safe for customers. These violations, many of which were recurring and were experienced across multiple systems, and other management failures, including the failure to replace, repair, and maintain equipment, provided a level of customer service that was neither safe nor adequate. In addition, as discussed in the Petition, many of the systems' assets were in poor condition and were at or near the end of their useful operating lives before CSWR-Florida acquired it. In addition, Sunshine's annual reports to the Commission show many years of insufficient investment and

inadequate expenditures for repair and maintenance. CSWR-Florida is bringing sufficient, adequate, and efficient service to the customers.

Section 366.03 also provides that "All rates and charges . . . shall be fair and reasonable." The customers have benefitted tremendously from this acquisition, and will continue to so benefit into the future. Section IV of the Petition lays out the range of benefits to customers, the most important of which is eliminating their dependence on the failing components of the Sunshine systems. In addition, because these systems would be part of the much larger CSWR-Florida water utility, through economies of scale and statewide rate consolidation the rate impact to customers is minimized as compared to the benefits and upgrades to their service. If the Commission grants the full acquisition adjustment requested, at the longest amortization to minimize rate impact as CSWR-Florida has requested, then the impact to customers of the acquisition adjustment is projected to be only $2.24 per month if rates are consolidated by the Commission and $3.96 per month if rates are not consolidated. The acquisition and proposed acquisition adjustment provide substantially more of a benefit to customers than just being baseline reasonable.

3. Please identify and discuss any internal or external concerns raised about paying in excess of book value for the acquired utility.

Response: Certainly, the acquisition of the system was thoroughly reviewed, vetted, and discussed prior to closing, and no internal or external concerns were raised regarding payment in excess of net book value. The Company's mission is to acquire and rehabilitate small, distressed water and wastewater systems that lack the capital, scale, or technical resources necessary to provide safe and reliable service on a sustainable basis. CSWR Florida believed it could bring these and other benefits to the customers served by the Sunshine water systems, and the Company's performance since it acquired that system has proved those beliefs to be correct. In addition, based upon numerous acquisition transactions throughout the eleven-state footprint served by CSWR-affiliates, the Company knew that while regulators focus on the net book value of a system's assets the owners of those systems oftentimes focus on the market value of those same assets, which is almost always significantly greater. Therefore, while CSWR's utility affiliates always enter into negotiations with the objective of paying the least amount possible for the water and wastewater systems they acquire, many times sellers will not accept a final purchase price at or near the net book value of the assets being sold.

Recent changes to Florida's regulatory framework—including the Commission's adoption of fair market valuation concepts and updates to the acquisition adjustment rule applied in this docket—implicitly acknowledge the reality described above – i.e., that acquisitions may require a price above net book value. In addition, those policy changes demonstrate a clear preference for well-capitalized, professionally managed utilities to acquire and revitalize failing systems. These changes recognize that net

book value alone does not reflect the economic realities of small utility ownership and the price those owners are willing to accept for their systems. They also recognize that due to the condition of aging infrastructure, or the level of capital investment required to restore systems to long-term viability, a sale of those systems to utilities better able to upgrade and maintain the systems is in the long-term best interests of the customers served by those systems – even it that requires recognition of a purchase price above net book value.

Rather than focusing solely on the present net book value of assets that may be decades old, the Company takes a long-term view centered on system sustainability, service reliability, and environmental compliance. The Company believes Florida should welcome, encourage, and support substantial private capital investment by utilities willing and able to assume the risks associated with turning around distressed systems. Revitalizing these systems benefits customers, reduces the risk of service failures and environmental harm, and does so at reasonable rates and a reasonable return, consistent with the Commission's stated policy objectives.

4. Regarding this acquisition in relation to the acquisition adjustment requests in Docket Nos. 20250038-WS, 20250043-WS, 2025130-WS, and 20250136-WS, please explain the variation in acquisition premiums among the five acquired utilities and what factors contributed to those differences.

Response: Acquisition adjustments vary among CSWR-Florida's acquisition adjustment cases based on system-specific factors, including each utility's net book value, physical condition, operational viability, and the circumstances of the arm's-length negotiations with the seller. Each acquisition is evaluated on its own merits, and differences in these factors necessarily result in differences in purchase prices and associated acquisition premiums. Purchase price is not determined by net book value. CSWR-Florida has yet to encounter a system owner who will sell at net book value, when they have the alternative of continuing to run the system and defer maintenance and updates. Until the point of receivership or environmental disaster, the status quo and running down the system tends to be profitable.

With respect to the Sunshine systems, the Commission issued a Proposed Agency Action Order (PSC-2022-0120-PAA-WU) which established the net book value of Sunshine's systems at $248,089 as of May 31, 2021. The purchase price for the Sunshine systems was determined through arm's-length negotiations between independent parties and reflects the specific characteristics and condition of that system at the time of acquisition. Accordingly, any acquisition premium associated with the Sunshine systems is attributable to those system-specific factors and differs from other dockets involving different utilities.

5. Please explain why no appraisal was obtained as part of CSWR-Florida's acquisition of the acquired utility.

Response: Please see Attachment "DR 5 – Valuation", which includes the third-party valuation report and all supporting documentation related to the valuation of the Sunshine Utilities assets.

6. Please discuss if any lower-cost acquisition alternatives were considered.

Response: No, the Company did not consider purchasing a different system than this one as a lower-cost alternative, if that is the question. The Company has acquired a range of systems at a range of costs. The acquisition of this system was the product of arms-length negotiations. There was not a lower-cost alternative means to acquire this system.

7. Please indicate whether the Utility used or contemplated any risk-sharing mechanisms (e.g., seeking partial recovery of the premium, contingencies, etc.). If so, please discuss.

Response: No. CSWR-Florida did not use or contemplate any risk-sharing mechanisms, other than this acquisition adjustment recovery process. CSWR-Florida takes the risks of ownership when it acquires a system.

8. Please indicate whether the Utility considered voluntarily reducing the adjustment to mitigate ratepayer impact. If so, please discuss.

Response: No. CSWR-Florida believes the Sunshine water system was non-viable and that customers have clearly benefited from this acquisition, as detailed in the Petition. To mitigate customer impact, CSWR-Florida has requested the maximum allowable amortization. CSWR-Florida's 5-year projected consolidated rate impact is $2.24 per water customer per month. As such, the Company believes that the benefits provided far outweigh the projected rate impact.

9. Please provide documentation showing whether the Utility sought to renegotiate terms based on any discovered risks of acquiring the utility.

Response: None. No renegotiation of terms occurred.

10. Please identify and explain whether any scenarios were considered where a portion of the acquisition premium could be disallowed.

Response: No, the Company has taken the risks associated with acquiring this system. The Company is aware that the Commission may Order a partial acquisition adjustment or deny an acquisition adjustment. This may impact the Company's willingness to continue to invest in Florida by acquiring other systems, but it does not impact the acquisition of this system, which has long since closed.

11. Please provide a full breakdown of any additional costs related to the acquisition incremental to purchase price (i.e., transactional and regulatory costs).

Response: Please see the attachment "DR 11 – Additional Costs."

12. Please identify any problems or concerns that were raised during the due diligence period that could have or did effect the purchase price.

Response: None. The Company's mission is to acquire failing and neglected systems. These systems are all rife with problems and concerns.

13. Please indicate whether the acquisition was subject to an independent audit or review. If so, please discuss the results of such review.

Response: No, it was not. The Company makes its own acquisition decisions.

14. Please provide accounting journal entries showing how the acquisition adjustment will be recorded on the utility's books.

Response: Please see the attachment "DR 14 – Journal Entries."

15. Please provide a detailed post-acquisition pro forma financial statement, including revenue requirement impact, of the acquired utility.

Response: Please see the attachment "DR 15 – Post Acquisition Pro Forma."

16. Please provide a comparison of the revenue requirement with and without the acquisition adjustment of the acquired utility.

Response: Please refer to the response provided in Data Request 15.

17. Please identify any regulatory assets or liabilities created as a result of this transaction, if any, and cite Florida Public Service Commission approval/Order No.

Response: There are none.

18. Please identify all parties to the transaction and their relationships to CSWR (if any).

Response: The seller of the system assets of Sunshine Utilities of Central Florida, Inc. was Dewaine W. Christmas, and his attorney for the transaction was Thomas J. Dobbins at Trow & Dobbins. CSWR-Florida's acquisition of the Sunshine system was an arms-length transaction. CSWR-Florida and Sunshine Utilities of Central Florida, Inc. are non-affiliated, independent parties. There was no prior relationship or influence between them, or their principals.

19. Please briefly explain how operations, staffing, and service quality have been affected post-acquisition.

Response: Please refer to Part IV "Basis for Granting this Petition," specifically section 3, included in the Petition.

20. Please explain what steps are or have been taken to ensure a seamless transition for customers.

Response: CSWR-Florida has implemented a comprehensive transition plan designed to ensure continuity of service, minimize customer disruption, and enhance the overall customer experience following the acquisition. These measures address customer communications, billing continuity, operational responsiveness, and emergency preparedness.

Upon closing, customers receive a Welcome Letter explaining the change in ownership, customer service and emergency contact information, and billing and payment options. The most current customer information available is used when onboarding the system into CSWR-Florida's billing platform to ensure accurate billing and uninterrupted service. Existing rates are adopted at the time of acquisition to mitigate rate impacts during the transition.

Customers gain access to CSWR-Florida's centralized 24/7 customer service call center for billing inquiries, service requests, and emergency calls. Licensed operations and maintenance personnel are on call at all times to respond to service interruptions or emergencies, supported by remote system and water quality monitoring that allows for prompt identification and resolution of operational issues. Customers also have access to electronic billing and an online customer portal, which improves

communication and reduces the potential for service or billing disruptions during the transition.

21. Please indicate whether any customer protections were included in the transaction. If so, please identify and discuss the specific customer protections.

Response: Customers benefit from the acquisition as extensively detailed in the Petition. The system rates were continued after acquisition. The Company has requested the maximum amortization of the acquisition adjustment to minimize impacts to customers. Customers are best protected by CSWR-Florida's delivery of sufficient, adequate, and efficient service as compared to the prior owner.

22. Please indicate whether CSWR LLC has sought similar acquisition adjustments in other jurisdictions. If so, provide the associated outcomes (e.g. acquisition adjustment approved in full, partial approval of the acquisition adjustment, or denial of the acquisition adjustment). Please provide the jurisdiction(s) and relevant order number(s).

Response: Yes, it has. Tennessee Rule 1220-04-14-.04 explicitly allows for the Commission to consider remediation of public health, safety, and welfare concerns when contemplating acquisition incentives. 16 Texas Administrative Code ("TAC") § 24.41(d) ensure acquisition adjustments are tied to arm's length transactions, improvements in service quality, and clear customer benefits. Partial acquisition adjustments were granted in Docket 24-00044.

Arizona Corporation Commission Decision No. 75626 (July 26, 2016) in Docket No. W-00000C-16-0151 ("Water Policy Order"). In its Water Policy Order, the Commission adopted a series of "Policy Statements for the Water and Wastewater Industries" in Arizona. In adopting the policies, the Commission recognized and explained that the "private water utility industry in Arizona is highly fragmented and problematic." The Commission further explained that "encouraging consolidation will have direct and tangible benefits for small water utility customers." Differences between Purchase Price and Net Book Value, identified as "deferred debits" in AZ, were granted in Order Number 81549.

Kentucky Rule KRS 278.295(2) codified the "Delta Test" which outlines the criteria a commission uses to determine the value of an acquired water or sewer asset for ratemaking. The commission sets the asset's value between its original cost and its acquisition price, regardless of how it was originally funded, if the acquiring utility demonstrates that the price was negotiated fairly, restoring the asset won't negatively affect overall costs or customer rates, the acquisition leads to operational efficiencies; purchase prices are clearly distinguished, and there are financial and service benefits from the acquisition. In Docket 2022-00432, the Commission granted approval of requested acquisition adjustments for 10 of the 12 systems found in its request.

TX 16 TAC § 24.41(d)(1) and (2) detail the recovery of positive acquisition adjustment. Specifically, the rule permits recovery when certain conditions are met, such as reasonable investments being made to comply with regulations, and the transaction benefiting customers or improving stability. The adjustment is only allowed if the buyer and seller are not affiliated, all related transactions are disclosed and conducted at arm's length, and the purchase price and impact on rates are reasonable. In the Final Order to Docket 54565, the Commission noted "The net positive acquisition adjustments for the systems CSWR-Texas acquired outside of the FMV process are reasonable and should be included in rate base."

Mississippi Commission Rule 8.102 governs rate adjustments related to the approval of a sale and transfer of public utility property. Commission Rule 8.102 states "Unless specifically requested in the petition and clearly allowed by the Commission's order, the approval of any sale or transfer by the Commission shall not, in and of itself, provide a basis or justification for any subsequent adjustment to rate base or operating expenses. An acquisition adjustment shall not be implied or allowed except upon written request for same in the Petition for Sale and Transfer and only where expressly allowed by order of the Commission when it grants approval for the sale and transfer. If an acquisition adjustment is sought, all supporting documentation and legal authority must be attached to the Petition presented pursuant to this rule. Adjustments, if allowed, shall be by Order of the Commission." Most recently, acquisition adjustments were granted to Great River in Docket Nos. 2020-UA-143, 2020-UA-144, 2021-UA-157, 2021-UA-158, 2022UA-37, 2022-UA-38, 2022-UA-144, 2022-UA-145, 2023-UA-35, and 2023-UA-36.

Overwhelmingly, various states are adopting rules that incentivize both the acquisition and, more importantly, the rehabilitation of small, distressed systems. In each of these states, recovery of acquisition adjustments (deferred debits) isn't just permitted — it's a deliberate tool to promote public health, infrastructure investment, and long-term service stability.

23. Assuming CSWR-FL's request to consolidate rates is not approved:

a. Please describe how the Utility would implement the resulting rate increases, including any measures proposed to mitigate customer bill impacts.

Response: CSWR-Florida has proposed consolidation in Docket 20250052 and will implement any rate increase or rate design as Ordered by the Florida PSC.

b. Please indicate whether the Utility would seek to phase-in rates.

Response: No. While CSWR has implemented phase in rates in other jurisdictions, these phase ins include carrying costs which would increase the rates in the long term.

24. Please provide any due diligence reports conducted by CSWR-Florida (or parent) associated with the acquisition.

Response: Please see the attachment "DR 24 – Sunshine Engineering Memo."

25. Please provide all materials related to sensitivity analyses or stress tests on acquisition pricing, if any, that CSWR-Florida or any party retained to assist in acquisition pricing conducted.

Response: None.

26. With respect to the acquisition adjustment in this case, please provide copies, if any, of:

a. Internal memos, board presentations, and management analyses supporting the adjustment.

Response: None.

b. Any codified internal policies regarding acquiring utilities and seeking acquisition adjustments.

Response: None.

c. Documented communications with investors or credit rating agencies regarding any acquisition-related impacts.

Response: None.

27. Please submit all internal emails, management meeting notes, and board presentations that mention concerns or debates over the acquisition price or expected regulatory treatment of the premium.

Response: As noted in item 3 above, there were not internal or external concerns over the excess of the purchase price over net book value. There was no "expected regulatory treatment."

28. With respect to the acquisition adjustment in this case, please provide unredacted versions (if any) of:

    a. Valuation reports related to the acquired utility.

    Response: Please refer to the response provided in Data Request 5.

    b. Copies of any internal rate impact modeling conducted by CSWR-Florida with respect to the acquired utility.

    Response: Please refer to the response provided in Data Request 15.

29. Please submit any documented communications between Utility executives/Utility staff and the acquired utility regarding acquisition premium justification.

    Response: None.

Thank you for the opportunity to provide additional information in support of the application. Please feel free to contact our office at your convenience with any additional questions or concerns.

Sincerely,

/s/ Thomas A. Crabb

Thomas A. Crabb
Attorney for CSWR-Florida

cc: Aaron Silas
Walt Trierweiler, Esq.
Austin Watrous, Esq.
Daniel Dose, Esq.
Jennifer Crawford, Esq.
Jennifer Augspurger, Esq.
discovery-gcl@psc.state.fl.us

Data Request # 5
Valuation

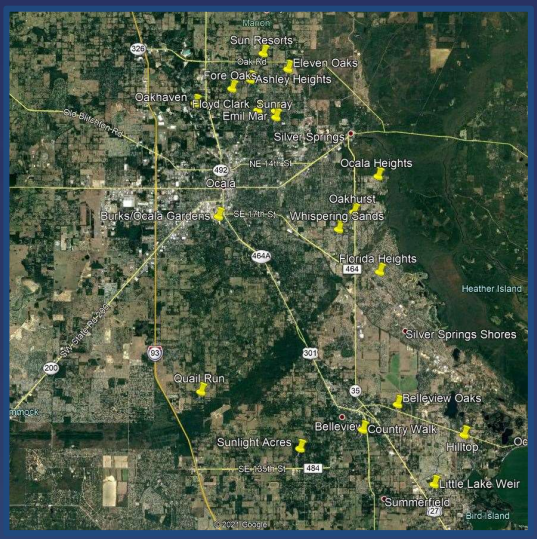
Valbridge
PROPERTY ADVISORS

Appraisal Report

Sunshine Utilities

Ocala, Marion County, Florida 34479

Report Date: 06-07-2021



FOR:

Central States Water Resources
Mr. Todd Thomas
Vice-President
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

Client Number:

Valbridge Property Advisors | New Orleans

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06-07-2021

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Mr. Todd Thomas
Vice-President
Central States Water Resources
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

RE: Appraisal Report
Sunshine Utilities

Ocala, Marion County, Florida 34479

Dear Mr. Thomas:

In accordance with your request, we have performed an appraisal of the above referenced property. This appraisal report sets forth the pertinent data gathered, the techniques employed, and the reasoning leading to our value opinions. This letter of transmittal does not constitute an appraisal report and the rationale behind the value opinion(s) reported cannot be adequately understood without the accompanying appraisal report.

The subject property, as referenced above, is located in the subdivisions of Belleville, Burks Ocala Garden, Country Walk, Eleven Oaks, Emil Mar, Florida Height, Floyd Clark, Fore Oaks, Hilltop, Little Lake Weir, Oakhaven, Ocala Height, Quail Run, Sun Resorts, Sunlight Acres, Sunray, Oakhurst, and Ashley Heights
and is further identified as tax parcel numbers 39199-002-01; 30609-007-22; 45372-003-01; 1490-000-002; 1557-007-001; 3748-008-001; 15812-001-00; 1517-000-001; 4508-000-001; 4593-012-014; 13816-001-01; 31829-008-02; 3577-000-003; 3577-000-103; 4154-001-000; 2427-007-001; 29660-001-21;15170-000-05; 2972-001-016. The subject property consists of a total of 72.26-acres or 3,147,646-square-foot parcel. Of the total, 58.04 acres are easements and 14.22 acres are fee simple area. The subject is 18 individual water distribution systems.

We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them.

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The client in this assignment is Central States Water Resources and the intended users of this report are Central States Water Resources and/or their assigns and no others. The sole intended use is for regulatory filings. The value opinions reported herein are subject to the definitions, assumptions, limiting conditions, and certifications contained in this report.

The findings and conclusions are further contingent upon the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results:

Extraordinary Assumptions:

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions:

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Based on the analysis contained in the following report, our value conclusions are summarized as follows:

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Fee Simple	Easement
Effective Date of Value	May 12, 2021	May 12, 2021
Value Conclusion	**$961,000**	**$588,000**

Respectfully submitted,
Valbridge Property Advisors | New Orleans

Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

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Summary of Salient Facts

Property Identification

Property Name	Sunshine Utilities
	Ocala, Marion County, Florida 34479
Latitude & Longitude	29.231215, -82.110089
Tax Parcel Number	3919900201; 30609-007-22; 45372-003-01; 1490-000-002;
Property Owner	Sunshine Utilities of Central Florida and CH Utility Holdings,

Site

Zoning	(A-1, A-2, R-1,-R-3, R-4, B-1 B-4)
Flood Zone	A, X
Easement Land Area	2,528,223 square feet
Fee Simple Land Area	619,423 square feet
Total Land Area	3,147,646 square feet

Valuation Opinions

Highest & Best Use - As Vacant	Residential
Reasonable Exposure Time	Six months or less
Reasonable Marketing Time	Six months or less

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Fee Simple	Easement
Effective Date of Value	May 12, 2021	May 12, 2021
Value Conclusion	**$961,000**	**$588,000**

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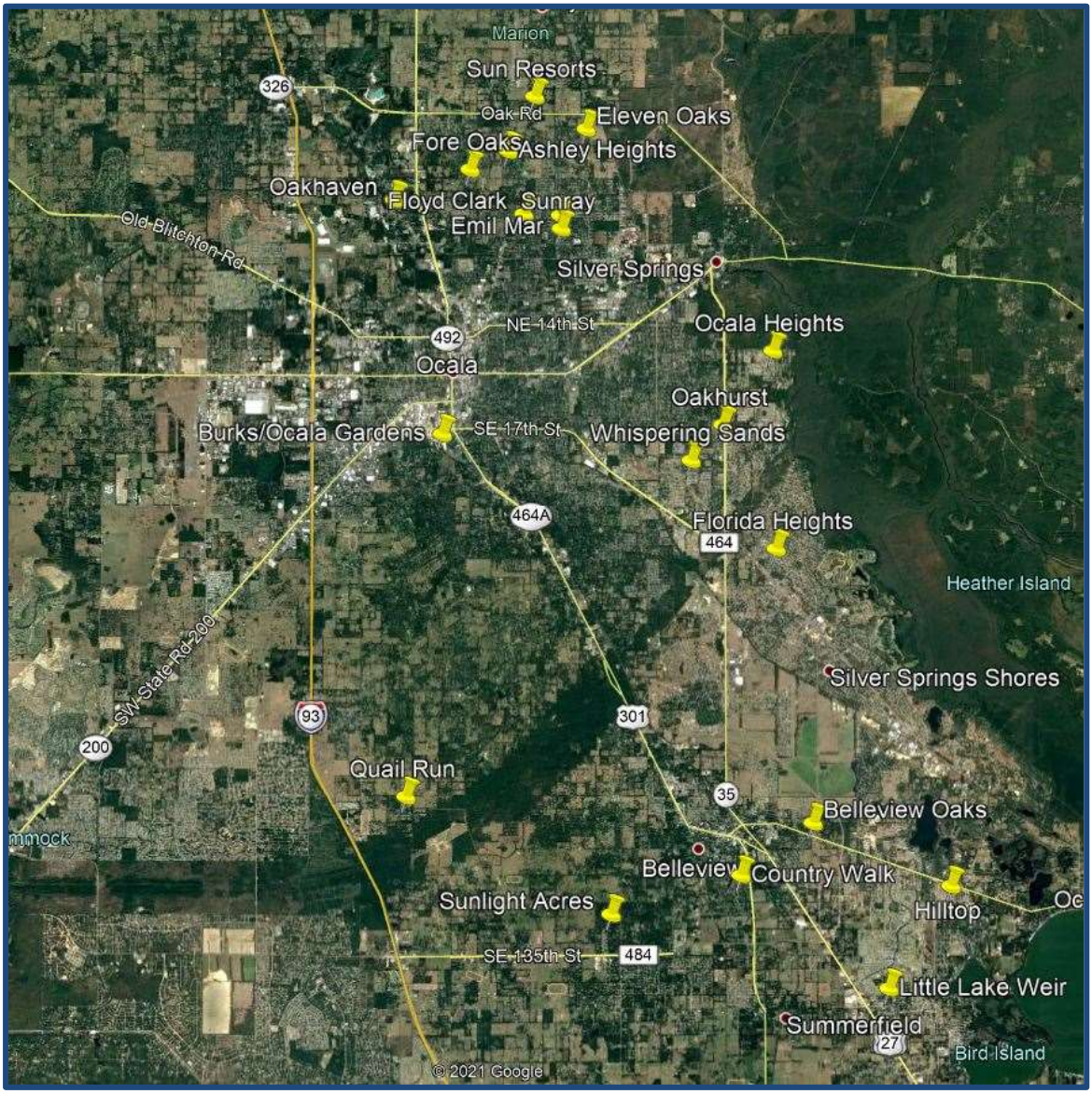
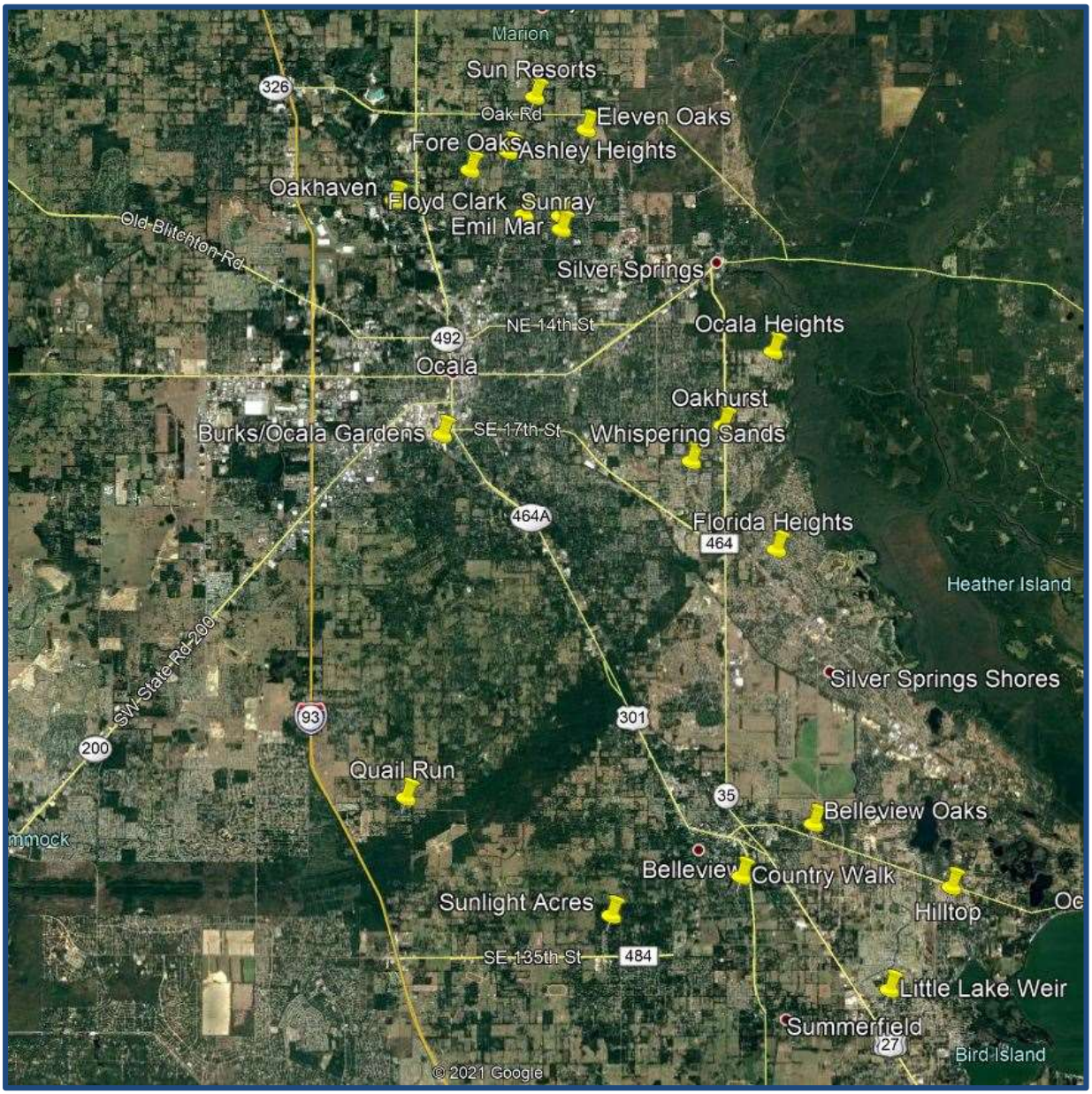
Aerial and Front Views

AERIAL VIEW



Location Map



Introduction

Client and Intended Users of the Appraisal

The client in this assignment is Central States Water Resources and the sole intended users of this report are Central States Water Resources and/or their assigns. Under no circumstances shall any of the following parties be entitled to use or rely on the appraisal or this appraisal report:

i. The borrower(s) on any loans or financing relating to or secured by the subject property,

ii. Any guarantor(s) of such loans or financing; or

iii. Principals, shareholders, investors, members or partners in such borrower(s) or guarantors.

Intended Use of the Appraisal

The sole intended use of this report is for regulatory filings.

Real Estate Identification

The subject property is located at , Ocala, Marion County, Florida 34479. The subject property is further identified by the tax parcel number 39199-002-01; 30609-007-22; 45372-003-01; 1490-000-002; 1557-007-001; 3748-008-001; 15812-001-00; 1517-000-001; 4508-000-001; 4593-012-014; 13816-001-01; 31829-008-02; 3577-000-003; 3577-000-103; 4154-001-000; 2427-007-001; 29660-001-21;15170-000-05; 2972-001-016.

Legal Description

The subject consist of easements for water distribution pipes, pumps, and wells and tax parcels 3919900201; 30609-007-22; 45372-003-01; 1490-000-002; 1557-007-001; 3748-008-001; 15812-001-00; 1517-000-001; 4508-000-001; 4593-012-014; 13816-001-01; 31829-008-02; 3577-000-003; 3577-000-103; 4154-001-000; 2427-007-001; 29660-001-21;15170-000-05; 2972-001-016.

Use of Real Estate as of the Effective Date of Value

As of the effective date of value, the subject was a utility property.

Use of Real Estate as Reflected in this Appraisal

The opinion of value for the subject as is reflects use as a utility property.

Ownership of the Property

According to Public Record, title to the subject property is vested in Sunshine Utilities of Central Florida and CH Utility Holdings, LLC.

History of the Property

Ownership of the subject property has not changed within the past three years.

Analysis of Listings/Offers/Contracts

The subject is not currently listed for sale or under contract for sale..

Type and Definition of Value

The appraisal problem is to develop an opinion of the market value of the subject property. "Market Value," as used in this appraisal, is defined as "the most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus." Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- *Buyer and seller are typically motivated.*
- *Both parties are well informed or well advised, each acting in what they consider their own best interests;*
- *A reasonable time is allowed for exposure in the open market;*
- *Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and*
- *The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale."1*

The value conclusions apply to the value of the subject property under the market conditions presumed on the effective date of value. Please refer to the Glossary in the Addenda section for additional definitions of terms used in this report.

Valuation Scenarios, Property Rights Appraised, and Effective Dates of Value

Per the scope of our assignment we developed opinions of value for the subject property under the following scenarios of value:

Valuation Scenario	Effective Date of Value
As Is Market Value of the Fee Simple Interest	May 12, 2021
As Is Market Value of the Easement Interest	May 12, 2021

Date of Report

The date of this report is 06-07-2021.

List of Items Requested but Not Provided

- All requested information was provided.

Assumptions and Conditions of the Appraisal

This appraisal assignment and the opinions reported herein are subject to the General Assumptions and Limiting Conditions contained in the report and the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results.

[1] Source: Code of Federal Regulations, Title 12, Banks and Banking, Part 722.2-Definitions

Extraordinary Assumptions

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Scope of Work

The elements addressed in the Scope of Work are (1) the extent to which the subject property is identified, (2) the extent to which the subject property is inspected, (3) the type and extent of data researched, (4) the type and extent of analysis applied, (5) the type of appraisal report prepared, and (6) the inclusion or exclusion of items of non-realty in the development of the value opinion. These items are discussed as below.

Extent to Which the Property Was Identified

The three components of the property identification are summarized as follows:

- Legal Characteristics - The subject was legally identified via public Records and information provided by the client.
- Economic Characteristics - Economic characteristics of the subject property were identified via information provided by the client, public records, market surveys, discussions with market participants, and Valbridge Property Advisor's files, as well as a comparison to properties with similar locational and physical characteristics.
- Physical Characteristics - The subject was physically identified via a general inspection of the property from aerial maps.

Type and Extent of Data Researched

We researched and analyzed: (1) market area data, (2) property-specific market data, (3) zoning and land-use data, and (4) current data on comparable listings and transactions. We also interviewed people familiar with the subject market/property type.

Type and Extent of Analysis Applied (Valuation Methodology)

We observed surrounding land use trends, the condition of any improvements, demand for the subject property, and relevant legal limitations in concluding a highest and best use. We then valued the subject based on that highest and best use conclusion.

Appraisers develop an opinion of property value with specific appraisal procedures that reflect three distinct methods of data analysis: the Cost Approach, Sales Comparison Approach, and Income Capitalization Approach. One or more of these approaches are used in all estimations of value.

- Sales Comparison Approach - In the Sales Comparison Approach, value is indicated by recent sales and/or listings of comparable properties in the market, with the appraiser analyzing the impact of material differences in both economic and physical elements between the subject and the comparables.
- Direct Capitalization: Land Residual Method - The Land Residual Methodology involves estimating the residual net income to the land by deducting from total potential income the portion attributable to the improvements, assuming development of the site at its highest and best use. The residual income is capitalized at an appropriate rate, resulting in an indication of land value.
- Direct Capitalization: Ground Rent Capitalization – A market derived capitalization rate is applied to the net income resulting from a ground lease. This can represent the leased fee or

fee simple interest, depending on whether the income potential is reflective of a lease in place or market rental rates.

- Yield Capitalization: Subdivision Development Method – Also known as Discounted Cash Flow Analysis (DCF), the methodology is most appropriate for land having multiple lot development in the near term as the highest and best use. The current site value is represented by discounting the anticipated cash flow to a present value, taking into consideration all necessary costs of development, maintenance, administration, and sales throughout the absorption period.

All of these approaches to value were considered. We assessed the availability of data and applicability of each approach to value within the context of the characteristics of the subject property and the needs and requirements of the client. Based on this assessment, we relied upon the Sales Comparison Approach. Further discussion of the extent of our analysis and the methodology of each approach is provided later in the respective valuation sections.

Appraisal Conformity and Report Type

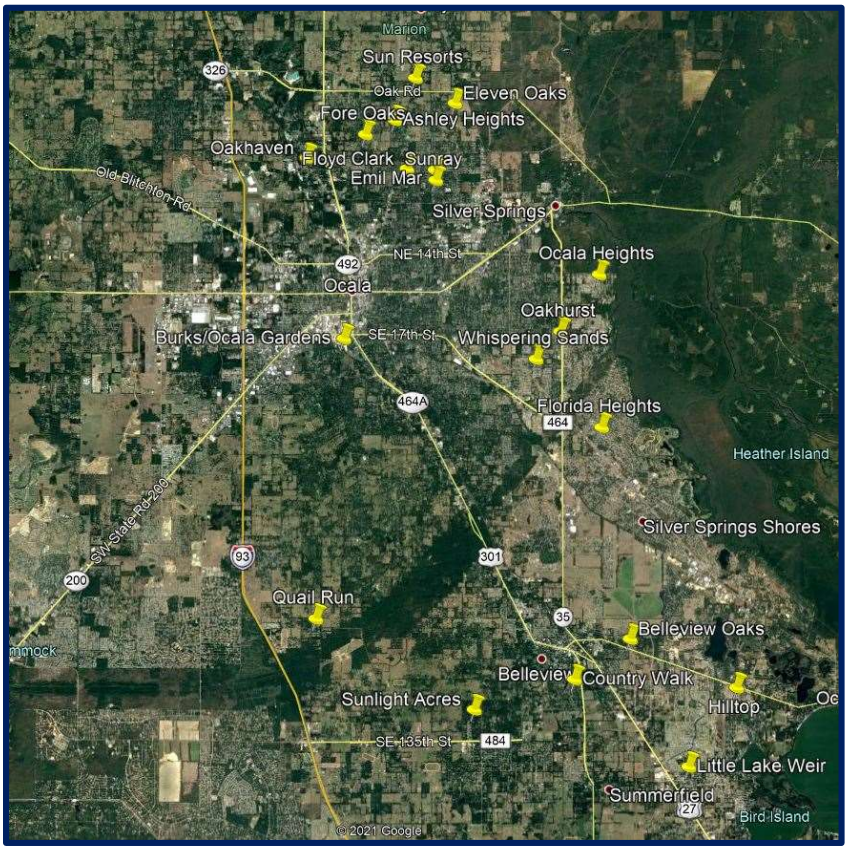
We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them. This is an Appraisal Report as defined by the Uniform Standards of Professional Appraisal Practice under Standards Rule 2-2a.

Personal Property/FF&E

All items of non-realty are excluded from this analysis. The opinion of market value developed herein is reflective of real estate only.

Regional and Market Area Analysis

REGIONAL MAP



Overview

The subject is located in Ocala, in Marion County. It is part of the Ocala MSA. Comprised of Marion County only; the Ocala MSA is located northwest of the Orlando area and is in the center of the state. The second largest national forest in Florida, the Ocala National Forest, and Silver Springs are two main outdoor attractions in the area. The city is well known for its hundreds of thoroughbred horse farms. Ocala and Marion County are known as the "horse capital of the world." The horse farms are situated in attractive rolling green pastures. The area also features numerous rivers and lakes.

Population

Population characteristics relative to the subject property are presented in the following table.

Population

Area	2010	Estimated 2020	Annual % Change 2010 - 20	Projected 2025	Annual % Change 2020 - 25
United States	308,745,538	333,793,107	0.8%	346,021,282	0.7%
Florida	18,801,310	21,587,015	1.4%	23,056,641	1.3%
Ocala, FL (MSA)	331,298	370,523	1.1%	392,640	1.2%
Marion County	331,298	370,523	1.1%	392,640	1.2%
Ocala CCD	134,984	149,376	1.0%	158,617	1.2%

Source: ESRI (ArcGIS)

Transportation

Major transportation routes in the larger area include Interstate 75 which runs North/South through Ocala and connects the city to Tampa, and north into Georgia . US Highway 27, US Route 301, and US Highway 441 also provided connections to the surrounding areas. Ocala International Airport provides general aviation services. Overall public transportation is not good with only a few public bus service lies in the area.

Employment

The principal employers of the area consists of mostly Retailers, Healthcare, Education, and Government. Lockheed Martin employs 1,600 of 1.17% of the workforce in the Ocala MSA with a manufacturing facility located at 498 Oak Road in the Silver Springs Shores area.

Employment by Industry - Marion County

Industry	2020 Estimate	Percent of Employment
Agriculture/Forestry/Fishing/Hunting	2,998	2.36%
Mining/Quarrying/Oil & Gas Extraction	62	0.05%
Construction	11,081	8.73%
Manufacturing	8,724	6.87%
Wholesale Trade	2,871	2.26%
Retail Trade	17,913	14.11%
Transportation/Warehousing	5,030	3.96%
Utilities	1,341	1.06%
Information	1,823	1.44%
Finance/Insurance	3,491	2.75%
Real Estate/Rental/Leasing	3,588	2.83%
Professional/Scientific/Tech Services	5,333	4.20%
Management of Companies/Enterprises	52	0.04%
Admin/Support/Waste Management Services	7,501	5.91%
Educational Services	9,246	7.28%
Health Care/Social Assistance	20,984	16.53%
Arts/entertainment/Recreation	2,361	1.86%
Accommodation/Food Services	9,106	7.17%
Other Services (excl Public Administration)	7,188	5.66%
Public Administration	6,258	4.93%
Total	126,951	100.0%

Source: ESRI (ArcGIS)

Unemployment

The following table exhibits current and past unemployment rates as obtained from the Bureau of Labor Statistics. Overall, the Region has unemployment rate lower than the nation but much higher than the State of Florida. Previously before the pandemic the numbers were much more similar to the overall state and national statistics. Theses numbers are expected to improve as government restrictions and expanded unemployment benefits are coming to an end.

Unemployment Rates

Area	YE 2015	YE 2016	YE 2017	YE 2018	YE 2019	2020[1]
United States	5.3%	4.9%	4.4%	3.9%	3.7%	8.1%
Florida	5.5%	4.8%	4.2%	3.6%	3.1%	5.8%
Ocala, FL (MSA)	6.6%	5.9%	5.1%	4.4%	4.0%	7.0%
Marion County, FL	6.6%	5.9%	5.1%	4.4%	4.0%	7.0%
Ocala, FL	6.2%	5.6%	5.0%	4.2%	3.8%	7.3%

Source: www.bls.gov *data not seasonally adjusted; [1]Annual - most recent for US, others lag by 1-2 mos.)*

Demographics

The following table depicts the area demographics in Ocala within a one-, three-, and five-mile radius from the subject.

Neighborhood Demographics

Radius (Miles)	1 Mile	3 Mile	5 Mile
Population Summary			
2010 Population	6,037	29,021	63,552
2020 Population Estimate	6,510	31,348	68,260
2025 Population Projection	6,840	33,030	71,507
Annual % Change (2020 - 2025)	1.0%	1.1%	0.9%
Housing Unit Summary			
2010 Housing Units	2,563	13,968	30,138
% Owner Occupied	74.5%	57.7%	55.2%
% Renter Occupied	16.9%	29.2%	31.2%
2020 Housing Units	2,763	15,056	32,316
% Owner Occupied	71.4%	54.7%	52.2%
% Renter Occupied	19.7%	31.9%	33.7%
2025 Housing Units	2,901	15,816	33,832
% Owner Occupied	71.3%	55.0%	52.4%
% Renter Occupied	19.8%	31.8%	33.7%
Annual % Change (2020 - 2025)	1.0%	1.0%	0.9%
Income Summary			
2020 Median Household Income Estimate	$48,856	$38,486	$40,370
2025 Median Household Income Projection	$50,648	$41,002	$42,584
Annual % Change	0.7%	1.3%	1.1%
2020 Per Capita Income Estimate	$23,456	$23,166	$25,100
2025 Per Capita Income Projection	$25,229	$25,674	$27,561
Annual % Change	1.5%	2.1%	1.9%

Source: ESRI (ArcGIS) *(Lat: 29.231215, Lon: -82.110089)*

Within a three-mile radius, the reported population is 31,348 with a projected growth rate of approximately 1.1% annually. There are 15,056 housing units within that three-mile radius. The growth rate is expected to be 1.0% annually. Most of the housing is owner-occupied. Our research indicates that property values in the area are stable to increasing.

Within a three-mile radius, the median household income is **$**38,486. Looking ahead, annual household income growth is projected at **1.3**% per year. The average income figures suggest that the inhabitants are within the lower to middle income brackets.

Median Household Income

Total median household income for the region is presented in the following table. Overall, the subject's MSA and county compare unfavorably to the state and the country.

Median Household Income

Area	Estimated 2020	Projected 2025	Annual % Change 2020 - 25
United States	$62,203	$67,325	1.6%
Florida	$56,362	$60,749	1.5%
Ocala, FL (MSA)	$45,452	$49,112	1.6%
Marion County	$45,452	$49,112	1.6%
Ocala CCD	$44,009	$47,229	1.4%

Source: ESRI (ArcGIS)

Nuisances & External Obsolescence

Neighborhood properties have adequate levels of maintenance. No adverse or unfavorable factors were observed.

Conclusions

The Ocala Metropolitan Statistical Area (MSA) is expected to show mixed levels of growth in its economic indicators. Personal income growth is expected to average 2.9 percent annually. The real per capita income level is the fourth lowest of the metros at an average of $37,200. Relative to the other metro areas, Ocala will have the fourth lowest average annual wage level at $50,900. Average annual wage growth is expected to be 4.5 percent. The metro has an expected annual average population growth of 1.5 percent. The Gross Metro Product is expected to average $9,920.02 million, which is the second lowest of the studied areas. Employment growth is expected to average a rate of 2.2 percent annually. The unemployment rate is estimated to average 4.5 percent. The Other Services sector is expected to be the fastest growing sector in Ocala, with an average annual growth rate of 8.4 percent. This is followed by the Professional & Business Services sector and the Education & Health sector with 5.8 and 4.7 percent average annual growth, respectively. The Manufacturing sector is expected to expand at 0.4 percent annually.[2]

[2] University of Central Florida, Institute of Economic Forecasting, Florida & Metro Forecast, November 2020

Site Description

The subject site is located the subdivisions of Belleville, Burks Ocala Garden, Country Walk, Eleven Oaks, Emil Mar, Florida Height, Floyd Clark, Fore Oaks, Hilltop, Little Lake Weir, Oakhaven, Ocala Height, Quail Run, Sun Resorts, Sunlight Acres, Sunray, Oakhurst, and Ashley Heights. The characteristics of the site are summarized as follows:

Site Characteristics

Gross Land Area:	72.26 Acres or 3,147,646 SF
Fee Simple Land Area:	14.22 Acres or 619,423 SF
Easement Land Area:	58.04 Acres or 2,528,223 SF58.04

Flood Zone Data

Flood Map Panel/Number:	120160 and 12083
Flood Map Date:	8/28/2008 and 4/19/2017
Flood Zone:	A, X
	Flood Zone A is described as an "Area of 100 year flood; base flood elevations and flood hazard factors determined." Flood Zone X is described as an "Area of Minimum Flood hazard."

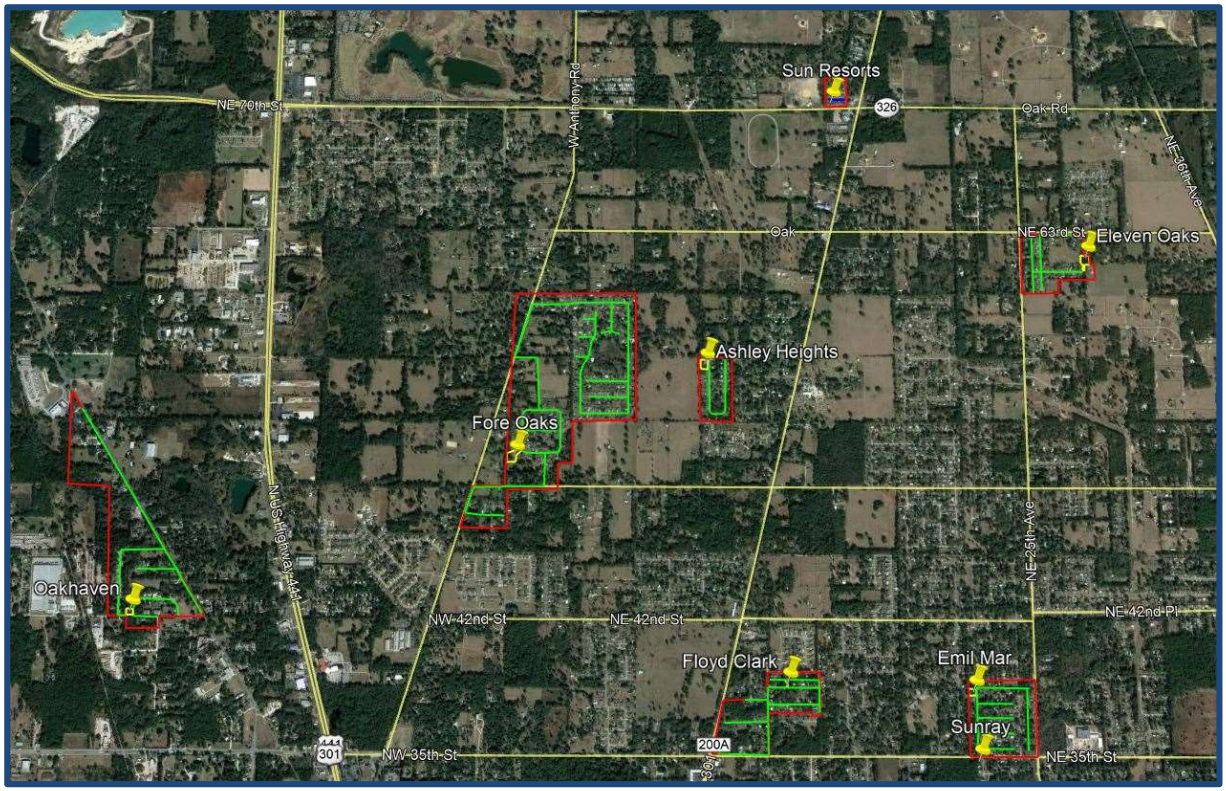
Zoning Designation

Zoning Jurisdiction:	Marion County
Zoning Classification:	A-1, A-2, R-1,-R-3, R-4, B-1 B-4,
Zoning Comments:	Mostly zoned R-1 and Single Family zonings. Some Commercial zonings as well as Agricultural zonings.

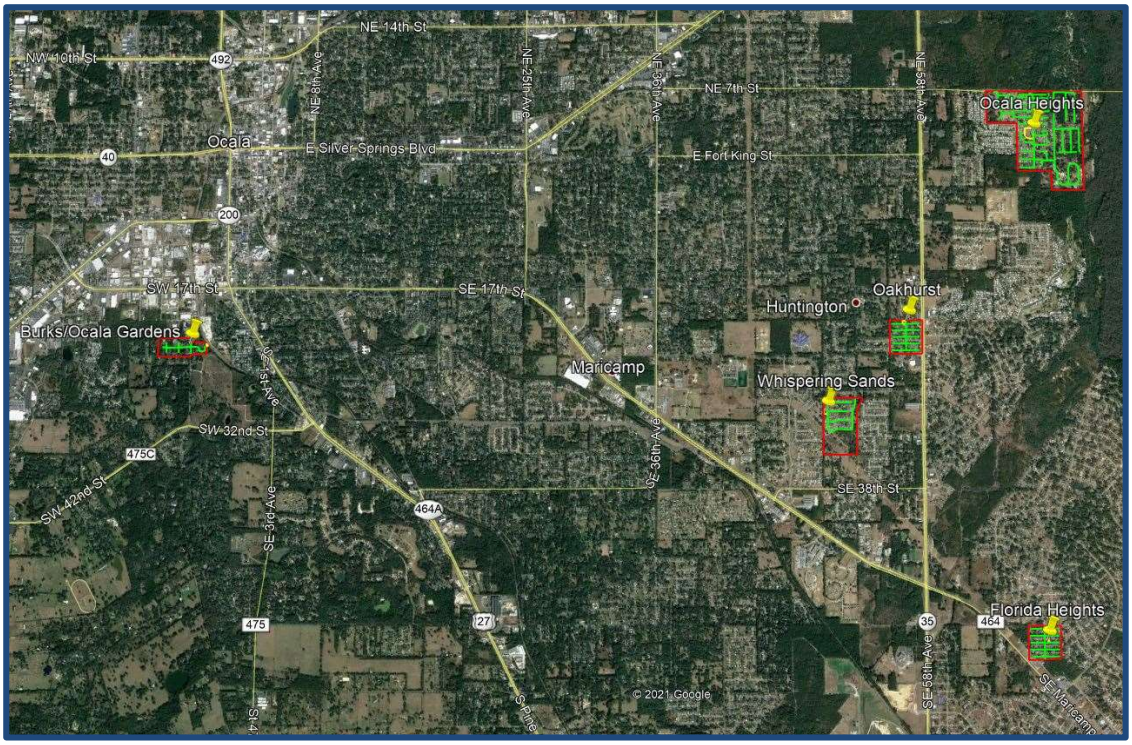
Analysis/Comments on Site

The subject is 18 individual water distribution systems consisting of a total of 58.04 acres of easements and 14.22 acres of fee simple area. The subject consist of multiple zoning types with the majority being single family residential zonings and only 1.5% being commercial.

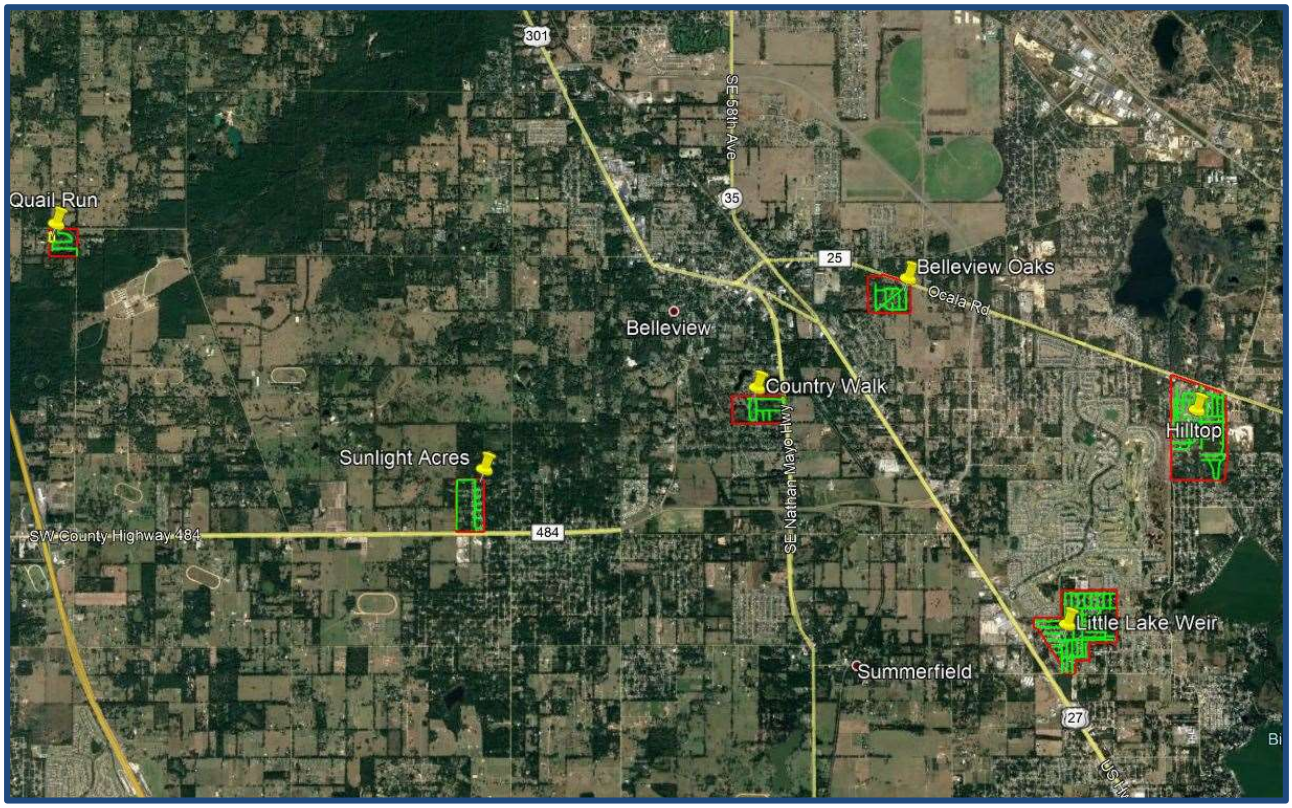
SERVICE AREA MAP 1



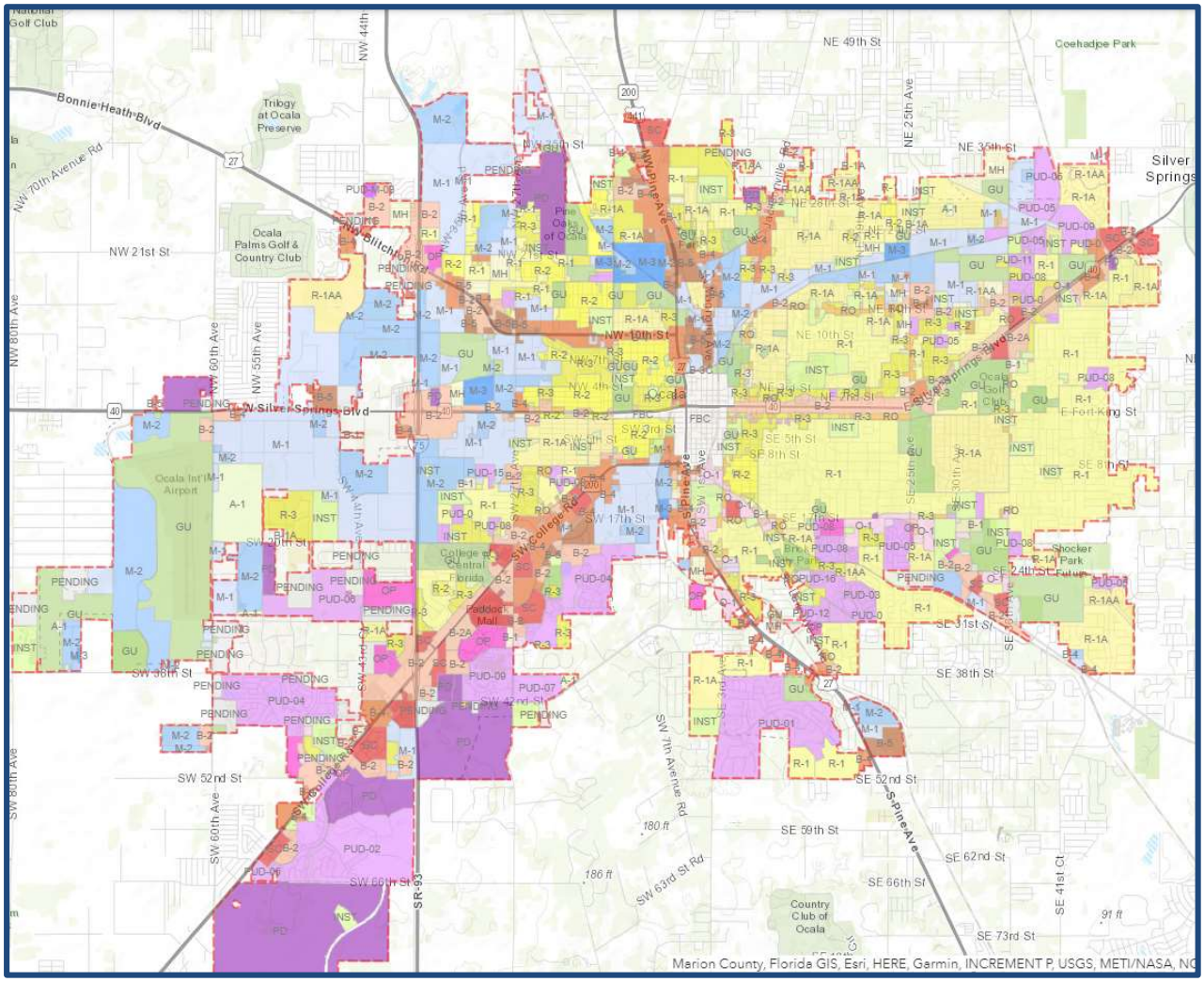
SERVICE AREA MAP 2



SERVICE AREA MAP 3



ZONING MAP


Bonnie Heath Blvd
NW 70th Avenue Rd
NW 21st St
NW 80th Ave
NW 60th Ave
NW 55th Ave
NW 44th
W Silver Springs Blvd
NW 10th St
NE 49th St
NE 25th Ave
NE 35th St
Silver Springs
Coehadjoe Park
Ocala Palms Golf & Country Club
Trilogy at Ocala Preserve
Ocala Int'l Airport
College Central Florida
Paddock Mall
SW College Rd
S Pine Ave
SW 38th St
SW 52nd St
SW 60th Ave
SW 80th Ave
SR-93
SW 7th Avenue Rd
SW 63rd St Rd
SE 38th St
SE 52nd St
SE 59th St
SE 62nd St
SE 66th St
SE 73rd St
SE 41st Ct
Country Club of Ocala
Shocker Park
E Fort King St
Marion County, Florida GIS, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NC

Highest and Best Use

The Highest and Best Use of a property is the use that is legally permissible, physically possible, and financially feasible which results in the highest value. An opinion of the highest and best use results from consideration of the criteria noted above under the market conditions or likely conditions as of the effective date of value. Determination of highest and best use results from the judgment and analytical skills of the appraiser. It represents an opinion, not a fact. In appraisal practice, the concept of highest and best use represents the premise upon which value is based.

Analysis of Highest and Best Use As Though Vacant

The primary determinants of the highest and best use of the property As Though Vacant are the issues of (1) Legal permissibility, (2) Physical possibility, (3) Financial feasibility, and (4) Maximum productivity.

Legally Permissible

The subject site is zoned A-1, A-2, R-1,-R-3, R-4, B-1 B-4, which controls the general nature of permissible uses but is appropriate for the location and physical elements of the subject property, providing for a consistency of use with the general neighborhood. The location of the subject property is appropriate for the uses allowed, as noted previously, and a change in zoning is unlikely. There are no known easements, encroachments, covenants or other use restrictions that would unduly limit or impede development.

Physically Possible

The physical attributes allow for a number of potential uses. Elements such as size, shape, availability of utilities, known hazards (flood, environmental, etc.), and other potential influences are described in the Site Description and have been considered. There are no items of a physical nature which would adversely impact development with the legal permitted uses.

Financially Feasible

The probable use of the site for residential development conforms to the pattern of land use in the market area. A review of published yield, rental and occupancy rates suggest that there is a balanced supply and demand is sufficient to support construction costs and ensure timely absorption of additional inventory in this market. Therefore, near-term speculative development of the subject site is financially feasible.

Maximally Productive

Among the financially feasible uses, the use that results in the highest value (the maximally productive use) is the highest and best use. Considering these factors, the maximally productive use as though vacant is for residential use.

Conclusion of Highest and Best Use As Though Vacant

The conclusion of the highest and best use As Though Vacant is for residential use.

Most Probable Buyer

As of the date of value, the most probable buyer of the subject property is an owner user.

Land Valuation

Methodology

Site Value is most often estimated using the sales comparison approach. This approach develops an indication of market value by analyzing closed sales, listings, or pending sales of properties similar to the subject, focusing on the difference between the subject and the comparables using all appropriate elements of comparison. This approach is based on the principles of supply and demand, balance, externalities, and substitution, or the premise that a buyer would pay no more for a specific property than the cost of obtaining a property with the same quality, utility, and perceived benefits of ownership.

The process of developing the sales comparison approach consists of the following analyses: (1) researching and verifying transactional data, (2) selecting relevant units of comparison, (3) analyzing and adjusting the comparable sales for differences in various elements of comparison, and (4) reconciling the adjusted sales into a value indication for the subject site.

Unit of Comparison

The unit of comparison depends on land use economics and how buyers and sellers use the property. The unit of comparison in this analysis is per usable square foot.

Elements of Comparison

Elements of comparison are the characteristics or attributes of properties and transactions that cause the prices of real estate to vary. The primary elements of comparison considered in sales comparison analysis are as follows: (1) property rights conveyed, (2) financing terms, (3) conditions of sale, (4) expenditures made immediately after purchase, (5) market conditions, (6) location and (7) physical characteristics.

Comparable Sales Data

To obtain and verify comparable sales of vacant land properties, we conducted a search of public records, field surveys, interviews with knowledgeable real estate professionals in the area, and a review of our internal database.

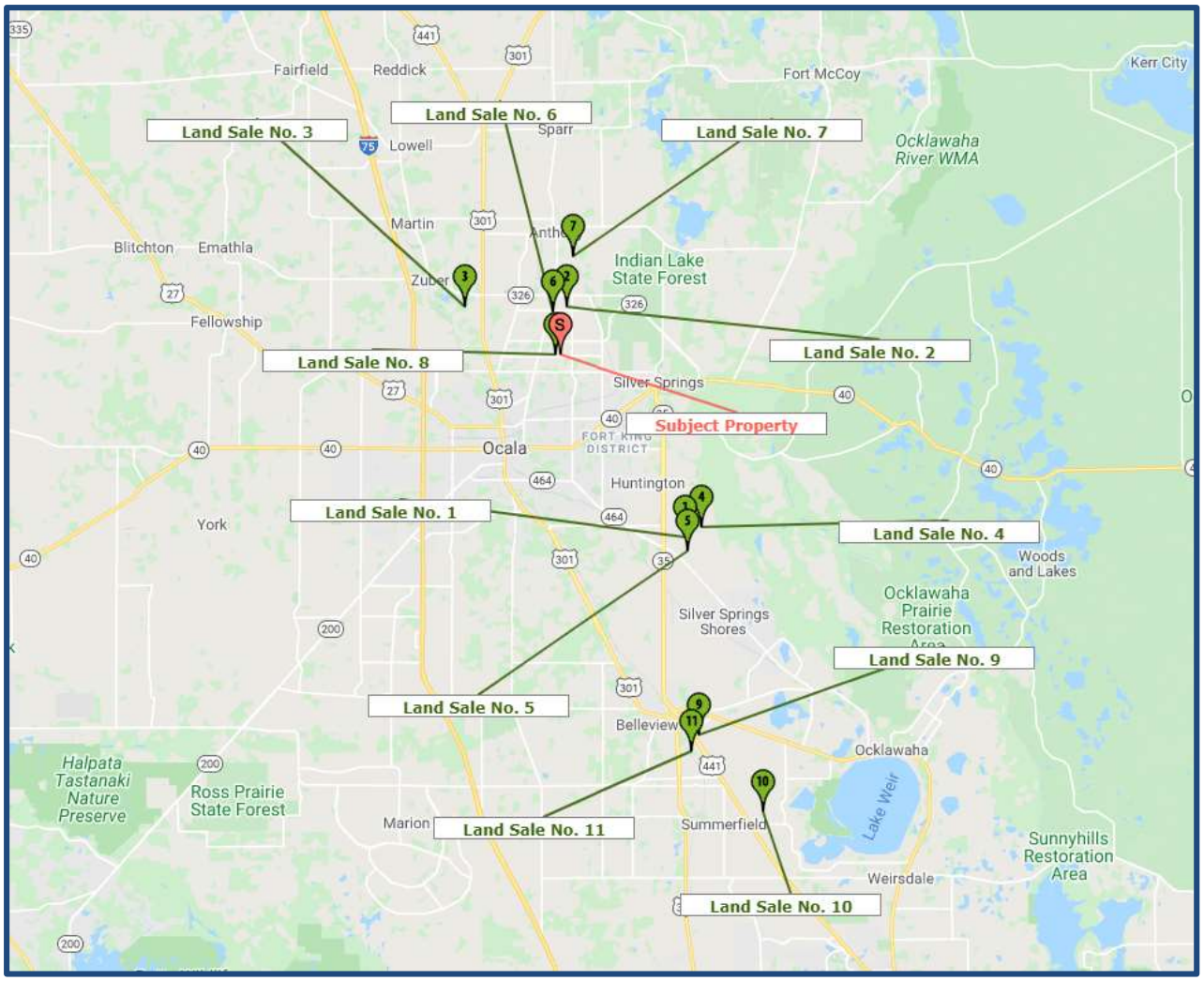
We included eleven sales in our analysis, as these sales were judged to be the most comparable to develop an indication of market value for the subject property.

The following is a table summarizing each sale comparable and a map illustrating the location of each in relation to the subject.

Land Sales Summary

	Sale # 1	Sale # 2	Sale # 3	Sale # 4	Sale # 5	Sale # 6	Sale # 7	Sale # 8	Sale # 9	Sale # 10	Sale # 11
Sale ID	1534787	1534907	1534890	1534645	1534808	1535056	1534956	1535039	1538658	1538663	1538677
Property Name	Vacant Land	Vacant Land	Vacant Land	Vacant Land	Vacant Land	Vacant Land	Vacant Land	Vacant Land	Residential Lot	Residential Lot	Residential Lot
Sale Status	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
Location	38 Hemlock Ter	6416 NE 23rd Ave	2628 NW 1st Ave	40 Redwood Rd	4 Hemlock Radial Ct	1812 NE 62nd St	2503 NE 86th Ln	4348 and 4310 NE 19th Ave	11847 SE 71st Avenue	9284 SE 143rd Place	0 SE 123rd Pl
	Ocala, Florida	Ocala, Florida	Ocala, Florida	Ocala, Florida	Ocala, Florida	Ocala, Florida	Anthony, Florida	Ocala, Florida	Belleview, Florida	Summerfield, Florida	Belleview, Florida
Tax ID	9021-0423-12	1480-019-000	1328-016-028	9020-0370-09, 9020-0370-08	9019-0360-30	14956-000-01	14443-002-00	15795-003-23, 15795-003-24	3924-012-019	4593-024-007	4530-005-003
Sales Data											
Date of Sale	3/26/2021	3/26/2021	1/15/2021	9/25/2020	8/12/2020	7/2/2019	6/24/2019	11/29/2018	8/27/2020	1/22/2021	5/20/2020
Sales Price	$11,500	$17,000	$6,500	$21,500	$11,500	$17,500	$1,950	$32,000	$10,000	$15,900	$9,000
Price/Usable Square Foot	$1.15	$1.18	$0.65	$0.95	$0.85	$0.57	$0.19	$1.10	$1.04	$2.15	$0.90
Grantor	Yaswantie Persaud	Katherine L. Bryant-House	Mary M. Jacupke	Edward Jones Trust Co Trustee for Mary Ann Rodriguez and Restated Living Trust	Lawrence Goldman et ux.	John E. Bruegger et ux, Living Trust	American Homestead Properties, LLC	Edward Keith Seyler	Scott D'elia	Lelia F McIntyre and Dustin S McIntyre	Teresa H Barbachano Trustee
Grantee	Shane Degantina	Crystal Thompson	Marcus Lee Grant, Jr.	Crystal Park Investments, LLC	Maribel Redondo	Joseph E Gauthier	Charles White et ux	Foundation Services of Central Florida, Inc.	Robert Rios Lopez Jr	Fred Roth	Ram One Ventures LLC
Recording Number									170441-53	21-2887	2020-051884
Book/Page Number	7421/1814	7420/0214	7375/0274	7280/1623	7250/0292	6998/0128	6994/1957	6884/1536	7256/1625	7374/915	7192/1534
Document Number											
Property Rights Conveyed	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple
Financing	Cash Deed	Cash Deed	Cash Deed	Cash Deed	Cash Deed	Cash Deed	Cash Deed	Cash Deed	Cash to Seller	Cash to Seller	Cash to Seller
Conditions of Sale	Arm's Length	Arm's Length	Arm's Length	Arm's Length	Arm's Length	Arm's Length	Arm's Length	Arm's Length/Typical	Arm's Length	Arm's Length	Arm's Length
Physical Characteristics											
Usable Land Area (Sq. Ft.)	10,019	14,375	10,019	22,651	13,504	30,928	10,454	29,185	9,583	7,405	10,019
Gross Land Area (Sq. Ft.)	10,019	14,375	10,019	22,651	13,504	30,928	10,454	29,185	9,583	7,405	10,019
Zoning	R-1	R-1	R-1	R-1	R-1	R-1	A-1	R-1	R1	R4	R-1
Flood Zone	X	X	X	X	X	X	X	X	X	X	X
Topography	At or below	At or below	Level	At or below	At or below	At or below	At or below	At or below	Level	Level	Level
Shape	Rectangular	Rectangular	Square	Irregular	Irregular	Rectangular	Rectangular	Rectangular	Rectangular	Rectangular	Rectangular
Utilities	All Available	All Available	All Available	All Available	All Available	All Available	All Available	All Available			
Corner Exposure	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior		Interior	
Access/Visibility	Average/Average	Average/Average	Below average/Average	Average/Average	Average/Good	Average/Average	Average/Average	Average to Good/Good	Average/	Average/	Average/
Primary Frontage	81 feet on Hemlock Terrace	109 feet on NE 23rd Avenue	100 feet on NW 1st Avenue	226 feet on Redwood Road	97 feet on Hemlock Radial Court	200 feet on NE 62nd Street	74 feet on NE 86th Lane	203 feet on NE 19th Avenue	75 feet on	75 feet on	73 feet on
Secondary Frontage	feet on	feet on	feet on	feet on	feet on	feet on	feet on	feet on	feet on	feet on	feet on
Proposed Use	Single Family Residential	Single Family		Single Family	Single Family	Single Family	Single Family	Single Family	Single Family	Single Family	Single Family

COMPARABLE SALES MAP



Land Sales Comparison Analysis

When necessary, adjustments were made for differences in various elements of comparison, including property rights conveyed, financing terms, conditions of sale, expenditures made immediately after purchase, market conditions, location, and other physical characteristics. If the element in comparison is considered superior to that of the subject, we applied a negative adjustment. Conversely, a positive adjustment was applied if inferior. A summary of the elements of comparison follows.

Elements of Comparison	
Real Property Rights Conveyed	Adjustments for differences in property rights appraised.
Financing Terms	Comparable properties are adjusted for differences between a transaction's financing terms and those assumed in the valuation of the subject property - e.g. seller financing, loan assumption, non-market terms.
Conditions of Sale	Comparable properties are adjusted for differences in the motivations of either the buyer or a seller in the transaction. In the instant case, no adjustments are required.
Expenditures After Purchase	Comparable properties can be adjusted for any additional investment required to make the property salable – e. g. costs to cure deferred maintenance, costs to demolish and remove any portion of the improvements, costs to remediate environmental contamination and/or costs to occupy or stabilize the property.
Market Conditions	Comparable properties can be adjusted for changes in market conditions because of inflation, deflation, fluctuations in supply and demand, or other factors.
Location	Location adjustments may be required when the locational characteristics of a comparable are different from those of the subject.
Size	The size adjustment addresses variance in the physical size of the comparables and that of the subject, as a larger parcel typically commands a lower price per unit than a smaller parcel. As this is an estimate of the Across the Fence Value, it is assumed that the subject would be part of a lot similar in size to the comparables. As such, no positive adjustments for size are warranted.
Shape /Depth	This element address variance in utility due to shape and/or depth. No adjustments are warranted.
Corner Exposure	Tracts featuring corner influence typically command higher prices in the market place, as opposed to interior locations. As the subject includes both corner and interior lots, no adjustments are warranted.

Summary of Adjustments

Presented on the following page is a summary of the adjustments made to the sale comparables. As noted earlier, these quantitative adjustments were based on our market research, best judgment, and experience in the appraisal of similar properties.

LAND SALES ADJUSTMENT GRID

	Subject	Sale # 1	Sale # 2	Sale # 3	Sale # 4	Sale # 5	Sale # 6	Sale # 7	Sale # 8	Sale # 9	Sale # 10	Sale # 11
Sale ID		1534787	1534907	1534890	1534645	1534808	1535056	1534956	1535039	1538658	1538663	1538677
Date of Value & Sale	May-21	March-21	March-21	January-21	September-20	August-20	July-19	June-19	November-18	August-20	January-21	May-20
Unadjusted Sales Price		$11,500	$17,000	$6,500	$21,500	$11,500	$17,500	$1,950	$32,000	$10,000	$15,900	$9,000
Usable Square Feet	619,423	10,019	14,375	10,019	22,651	13,504	30,928	10,454	29,185	9,583	7,405	10,019
Unadjusted Sales Price per Usable Sq. Ft.		**$1.15**	**$1.18**	**$0.65**	**$0.95**	**$0.85**	**$0.57**	**$0.19**	**$1.10**	**$1.04**	**$2.15**	**$0.90**
Transactional Adjustments												
Property Rights Conveyed	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*
Adjusted Sales Price		$1.15	$1.18	$0.65	$0.95	$0.85	$0.57	$0.19	$1.10	$1.04	$2.15	$0.90
Financing Terms	*Cash to Seller*	*Cash Deed*	*Cash Deed*	*Cash Deed*	*Cash Deed*	*Cash Deed*	*Cash Deed*	*Cash Deed*	*Cash Deed*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*
Adjusted Sales Price		$1.15	$1.18	$0.65	$0.95	$0.85	$0.57	$0.19	$1.10	$1.04	$2.15	$0.90
Conditions of Sale	*Typical*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length/Typical*	*Arm's Length*	*Arm's Length*	*Arm's Length*
Adjusted Sales Price		$1.15	$1.18	$0.65	$0.95	$0.85	$0.57	$0.19	$1.10	$1.04	$2.15	$0.90
Expenditures after Sale												
Adjusted Sales Price		**$1.15**	**$1.18**	**$0.65**	**$0.95**	**$0.85**	**$0.57**	**$0.19**	**$1.10**	**$1.04**	**$2.15**	**$0.90**
Market Conditions Adjustments												
Elapsed Time from Date of Value		*0.13 years*	*0.13 years*	*0.32 years*	*0.63 years*	*0.75 years*	*1.86 years*	*1.88 years*	*2.45 years*	*0.71 years*	*0.30 years*	*0.98 years*
Market Trend Through	May-21	0.5%	0.5%	1.3%	2.5%	3.0%	7.5%	7.5%	9.8%	2.8%	1.2%	3.9%
Analyzed Sales Price		**$1.15**	**$1.19**	**$0.66**	**$0.97**	**$0.88**	**$0.61**	**$0.20**	**$1.20**	**$1.07**	**$2.17**	**$0.93**
Physical Adjustments												
Location	*0 Ocala, Florida*	*38 Hemlock Ter Ocala, Florida*	*6416 NE 23rd Ave Ocala, Florida*	*2628 NW 1st Ave Ocala, Florida*	*40 Redwood Rd Ocala, Florida*	*4 Hemlock Radial Ct Ocala, Florida*	*1812 NE 62nd St Ocala, Florida*	*2503 NE 86th Ln Anthony, Florida*	*4348 and 4310 NE 19th Ave Ocala, Florida*	*11847 SE 71st Avenue Belleview, Florida*	*9284 SE 143rd Place Summerfield, Florida*	*0 SE 123rd Pl Belleview, Florida*
Adjustment		-	-	-	-	-	-	-	-	-	-	-
Size	*619,423 sf*	*10,019 sf*	*14,375 sf*	*10,019 sf*	*22,651 sf*	*13,504 sf*	*30,928 sf*	*10,454 sf*	*29,185 sf*	*9,583 sf*	*7,405 sf*	*10,019 sf*
Adjustment		-5.0%	-	-5.0%	-	-	10.0%	-	-	-5.0%	-10.0%	-5.0%
Net Physical Adjustment		-5.0%	-	-5.0%	-	-	10.0%	-	-	-5.0%	-10.0%	-5.0%
Adjusted Sales Price per Usable Square Foot		**$1.10**	**$1.19**	**$0.62**	**$0.97**	**$0.88**	**$0.67**	**$0.20**	**$1.20**	**$1.02**	**$1.96**	**$0.89**

Conclusion

From the market data available, we used eleven land sales in competitive market areas which were adjusted based on pertinent elements of comparison. The following table summarizes the unadjusted and adjusted unit prices:

Land Sale Statistics

Metric	Unadjusted	Analyzed	Adjusted
Min. Sales Price per Usable Square Foot	$0.19	$0.20	$0.20
Max. Sales Price per Usable Square Foot	$2.15	$2.17	$1.96
Median Sales Price per Usable Square Foot	$0.95	$0.97	$0.97
Mean Sales Price per Usable Square Foot	$0.97	$1.00	$0.97

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.95 per usable square foot. Thus, the estimated "Across the Fence Value" of the Fee Simple Interest in the subject easements is calculated to be $2,402,000..

Valuation of the Fee Simple Area

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.95 per usable square foot. Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject Fee Simple area is calculated as follows:

Calculation of Fee Simple Value

Site Area		Unit Value		Market Value
619,423 Square Feet	X	$0.95	=	$588,000

Valuation of the Easement

The use to which the subject easements will be put to is for underground water and sewer pipes. As such, little or no surface improvements will be possible, but access across the surface will be allowed. It is my opinion, therefore, that such an easement will encumber approximately 40% of the ownership rights in the subject.

Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject easements is calculated as follows:

Calculation of Easement Value

Site Area		Unit Value		Market Value of Fee		Easement Use	Indicated Value of Easement
2,528,223 square feet	X	$0.95 PSF	=	$2,402,000	X	40%	$961,000

Exposure Time and Marketing Period

Based on statistical information about days on market, escrow length, and marketing times gathered through national investor surveys, sales verification, and interviews of market participants, marketing and exposure time estimates of six months or less and six months or less, respectively, are considered reasonable and appropriate for the subject property.

General Assumptions and Limiting Conditions

This appraisal is subject to the following general assumptions and limiting conditions:

1. The legal description – if furnished to us – is assumed to be correct.
2. No responsibility is assumed for legal matters, questions of survey or title, soil or subsoil conditions, engineering, availability or capacity of utilities, or other similar technical matters. The appraisal does not constitute a survey of the property appraised. All existing liens and encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management unless otherwise noted.
3. Unless otherwise noted, the appraisal will value the property as though free of contamination. Valbridge Property Advisors | New Orleans will conduct no hazardous materials or contamination inspection of any kind. It is recommended that the client hire an expert if the presence of hazardous materials or contamination poses any concern.
4. The stamps and/or consideration placed on deeds used to indicate sales are in correct relationship to the actual dollar amount of the transaction.
5. Unless otherwise noted, it is assumed there are no encroachments, zoning violations or restrictions existing in the subject property.
6. The appraiser is not required to give testimony or attendance in court by reason of this appraisal, unless previous arrangements have been made.
7. Unless expressly specified in the engagement letter, the fee for this appraisal does not include the attendance or giving of testimony by Appraiser at any court, regulatory or other proceedings, or any conferences or other work in preparation for such proceeding. If any partner or employee of Valbridge Property Advisors | New Orleans is asked or required to appear and/or testify at any deposition, trial, or other proceeding about the preparation, conclusions or any other aspect of this assignment, client shall compensate Appraiser for the time spent by the partner or employee in appearing and/or testifying and in preparing to testify according to the Appraiser's then current hourly rate plus reimbursement of expenses.
8. The values for land and/or improvements, as contained in this report, are constituent parts of the total value reported and neither is (or are) to be used in making a summation appraisal of a combination of values created by another appraiser. Either is invalidated if so used.
9. The dates of value to which the opinions expressed in this report apply are set forth in this report. We assume no responsibility for economic or physical factors occurring at some point at a later date, which may affect the opinions stated herein. The forecasts, projections, or operating estimates contained herein are based on current market conditions and anticipated short-term supply and demand factors and are subject to change with future conditions. Appraiser is not responsible for determining whether the date of value requested by Client is appropriate for Client's intended use.
10. The sketches, maps, plats and exhibits in this report are included to assist the reader in visualizing the property. The appraiser has made no survey of the property and assumed no responsibility in connection with such matters.
11. The information, estimates and opinions, which were obtained from sources outside of this office, are considered reliable. However, no liability for them can be assumed by the appraiser.

12. Possession of this report, or a copy thereof, does not carry with it the right of publication. Neither all, nor any part of the content of the report, or copy thereof (including conclusions as to property value, the identity of the appraisers, professional designations, reference to any professional appraisal organization or the firm with which the appraisers are connected), shall be disseminated to the public through advertising, public relations, news, sales, or other media without prior written consent and approval.
13. No claim is intended to be expressed for matters of expertise that would require specialized investigation or knowledge beyond that ordinarily employed by real estate appraisers. We claim no expertise in areas such as, but not limited to, legal, survey, structural, environmental, pest control, mechanical, etc.
14. This appraisal was prepared for the sole and exclusive use of the client for the function outlined herein. Any party who is not the client or intended user identified in the appraisal or engagement letter is not entitled to rely upon the contents of the appraisal without express written consent of Valbridge Property Advisors | New Orleans and Client. The Client shall not include partners, affiliates, or relatives of the party addressed herein. The appraiser assumes no obligation, liability or accountability to any third party.
15. Distribution of this report is at the sole discretion of the client, but third-parties not listed as an intended user on the face of the appraisal or the engagement letter may not rely upon the contents of the appraisal. In no event shall client give a third-party a partial copy of the appraisal report. We will make no distribution of the report without the specific direction of the client.
16. This appraisal shall be used only for the function outlined herein, unless expressly authorized by Valbridge Property Advisors | New Orleans.
17. This appraisal shall be considered in its entirety. No part thereof shall be used separately or out of context.
18. Unless otherwise noted in the body of this report, this appraisal assumes that the subject property does not fall within the areas where mandatory flood insurance is effective. Unless otherwise noted, we have not completed nor have we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property. Because the appraiser is not a surveyor, he or she makes no guarantees, express or implied, regarding this determination.
19. The flood maps are not site specific. We are not qualified to confirm the location of the subject property in relation to flood hazard areas based on the FEMA Flood Insurance Rate Maps or other surveying techniques. It is recommended that the client obtain a confirmation of the subject property's flood zone classification from a licensed surveyor.
20. If the appraisal is for mortgage loan purposes 1) we assume satisfactory completion of improvements if construction is not complete, 2) no consideration has been given for rent loss during rent-up unless noted in the body of this report, and 3) occupancy at levels consistent with our "Income and Expense Projection" are anticipated.
21. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures which would render it more or less valuable. No responsibility is assumed for such conditions or for engineering which may be required to discover them.

22. Our inspection included an observation of the land and improvements thereon only. It was not possible to observe conditions beneath the soil or hidden structural components within the improvements. We inspected the buildings involved, and reported damage (if any) by termites, dry rot, wet rot, or other infestations as a matter of information, and no guarantee of the amount or degree of damage (if any) is implied. Condition of heating, cooling, ventilation, electrical and plumbing equipment is considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. Should the client have concerns in these areas, it is the client's responsibility to order the appropriate inspections. The appraiser does not have the skill or expertise to make such inspections and assumes no responsibility for these items.
23. This appraisal does not guarantee compliance with building code and life safety code requirements of the local jurisdiction. It is assumed that all required licenses, consents, certificates of occupancy or other legislative or administrative authority from any local, state or national governmental or private entity or organization have been or can be obtained or renewed for any use on which the value conclusion contained in this report is based unless specifically stated to the contrary.
24. When possible, we have relied upon building measurements provided by the client, owner, or associated agents of these parties. In the absence of a detailed rent roll, reliable public records, or "as-built" plans provided to us, we have relied upon our own measurements of the subject improvements. We follow typical appraisal industry methods; however, we recognize that some factors may limit our ability to obtain accurate measurements including, but not limited to, property access on the day of inspection, basements, fenced/gated areas, grade elevations, greenery/shrubbery, uneven surfaces, multiple story structures, obtuse or acute wall angles, immobile obstructions, etc. Professional building area measurements of the quality, level of detail, or accuracy of professional measurement services are beyond the scope of this appraisal assignment.
25. We have attempted to reconcile sources of data discovered or provided during the appraisal process, including assessment department data. Ultimately, the measurements that are deemed by us to be the most accurate and/or reliable are used within this report. While the measurements and any accompanying sketches are considered to be reasonably accurate and reliable, we cannot guarantee their accuracy. Should the client desire more precise measurement, they are urged to retain the measurement services of a qualified professional (space planner, architect or building engineer) as an alternative source. If this alternative measurement source reflects or reveals substantial differences with the measurements used within the report, upon request of the client, the appraiser will submit a revised report for an additional fee.
26. In the absence of being provided with a detailed land survey, we have used assessment department data to ascertain the physical dimensions and acreage of the property. Should a survey prove this information to be inaccurate, upon request of the client, the appraiser will submit a revised report for an additional fee.
27. If only preliminary plans and specifications were available for use in the preparation of this appraisal, and a review of the final plans and specifications reveals substantial differences upon request of the client the appraiser will submit a revised report for an additional fee.

28. Unless otherwise stated in this report, the value conclusion is predicated on the assumption that the property is free of contamination, environmental impairment or hazardous materials. Unless otherwise stated, the existence of hazardous material was not observed by the appraiser and the appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation or other potentially hazardous materials may affect the value of the property. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required for discovery. The client is urged to retain an expert in this field, if desired.
29. The Americans with Disabilities Act ("ADA") became effective January 26, 1992. We have not made a specific compliance survey of the property to determine if it is in conformity with the various requirements of the ADA. It is possible that a compliance survey of the property, together with an analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this could have a negative effect on the value of the property. Since we have no direct evidence relating to this issue, we did not consider possible noncompliance with the requirements of ADA in developing an opinion of value.
30. This appraisal applies to the land and building improvements only. The value of trade fixtures, furnishings, and other equipment, or subsurface rights (minerals, gas, and oil) were not considered in this appraisal unless specifically stated to the contrary.
31. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated, unless specifically stated to the contrary.
32. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute prediction of future operating results. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance.
33. Any estimate of insurable value, if included within the scope of work and presented herein, is based upon figures developed consistent with industry practices. However, actual local and regional construction costs may vary significantly from our estimate and individual insurance policies and underwriters have varied specifications, exclusions, and non-insurable items. As such, we strongly recommend that the Client obtain estimates from professionals experienced in establishing insurance coverage. This analysis should not be relied upon to determine insurance coverage and we make no warranties regarding the accuracy of this estimate.
34. The data gathered in the course of this assignment (except data furnished by the Client) shall remain the property of the Appraiser. The appraiser will not violate the confidential nature of the appraiser-client relationship by improperly disclosing any confidential information furnished to the appraiser. Notwithstanding the foregoing, the Appraiser is authorized by the client to disclose all or any portion of the appraisal and related appraisal data to appropriate representatives of the Appraisal Institute if such disclosure is required to enable the appraiser to comply with the Bylaws and Regulations of such Institute now or hereafter in effect.

35. You and Valbridge Property Advisors | New Orleans both agree that any dispute over matters in excess of $5,000 will be submitted for resolution by arbitration. This includes fee disputes and any claim of malpractice. The arbitrator shall be mutually selected. If Valbridge Property Advisors | New Orleans and the client cannot agree on the arbitrator, the presiding head of the Local County Mediation & Arbitration panel shall select the arbitrator. Such arbitration shall be binding and final. In agreeing to arbitration, we both acknowledge that, by agreeing to binding arbitration, each of us is giving up the right to have the dispute decided in a court of law before a judge or jury. In the event that the client, or any other party, makes a claim against Valbridge Property Advisors | New Orleans or any of its employees in connections with or in any way relating to this assignment, the maximum damages recoverable by such claimant shall be the amount actually received by Valbridge Property Advisors | New Orleans for this assignment, and under no circumstances shall any claim for consequential damages be made.
36. Valbridge Property Advisors | New Orleans shall have no obligation, liability, or accountability to any third party. Any party who is not the "client" or intended user identified on the face of the appraisal or in the engagement letter is not entitled to rely upon the contents of the appraisal without the express written consent of Valbridge Property Advisors | New Orleans. "Client" shall not include partners, affiliates, or relatives of the party named in the engagement letter. Client shall hold Valbridge Property Advisors | New Orleans and its employees harmless in the event of any lawsuit brought by any third party, lender, partner, or part-owner in any form of ownership or any other party as a result of this assignment. The client also agrees that in case of lawsuit arising from or in any way involving these appraisal services, client will hold Valbridge Property Advisors | New Orleans harmless from and against any liability, loss, cost, or expense incurred or suffered by Valbridge Property Advisors | New Orleans in such action, regardless of its outcome.
37. The Valbridge Property Advisors office responsible for the preparation of this report is independently owned and operated by VPA of South Louisiana, Inc.. Neither Valbridge Property Advisors, Inc., nor any of its affiliates has been engaged to provide this report. Valbridge Property Advisors, Inc. does not provide valuation services, and has taken no part in the preparation of this report.
38. If any claim is filed against any of Valbridge Property Advisors, Inc., a Florida Corporation, its affiliates, officers or employees, or the firm providing this report, in connection with, or in any way arising out of, or relating to, this report, or the engagement of the firm providing this report, then (1) under no circumstances shall such claimant be entitled to consequential, special or other damages, except only for direct compensatory damages, and (2) the maximum amount of such compensatory damages recoverable by such claimant shall be the amount actually received by the firm engaged to provide this report.
39. This report and any associated work files may be subject to evaluation by Valbridge Property Advisors, Inc., or its affiliates, for quality control purposes.
40. Acceptance and/or use of this appraisal report constitutes acceptance of the foregoing general assumptions and limiting conditions.
41. The global outbreak of a "novel coronavirus" (known as COVID-19) was officially declared a pandemic by the World Health Organization (WHO). It is currently unknown what direct, or indirect, effect, if any, this event may have on the national economy, the local economy or the market in which the subject property is located. The reader is cautioned, and reminded that the conclusions presented in this appraisal report apply only as of the effective date(s) indicated. The appraiser makes no representation as to the effect on the subject property of this event, or any event, subsequent to the effective date of the appraisal.

Certification – Arthur L. Schwertz

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. The undersigned has not performed services regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
9. Arthur L. Schwertz has personally inspected the subject property via aerial maps.
10. R. Carter Higdon provided significant real property appraisal assistance to the person signing this certification.
11. The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
12. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
13. As of the date of this report, the undersigned has completed the continuing education program for Designated Members of the Appraisal Institute.

Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

Addenda

Glossary

Qualifications

- Arthur L. Schwertz, MAI - Senior Managing Director

Information on Valbridge Property Advisors

Office Locations

Glossary

Definitions are taken from The Dictionary of Real Estate Appraisal, 6th Edition (Dictionary), the Uniform Standards of Professional Appraisal Practice (USPAP), and Building Owners and Managers Association International (BOMA).

Absolute Net Lease

A lease in which the tenant pays all expenses including structural maintenance, building reserves, and management; often a long-term lease to a credit tenant. (Dictionary)

Amortization

The process of retiring a debt or recovering a capital investment, typically through scheduled, systematic repayment of the principal; a program of periodic contributions to a sinking fund or debt retirement fund. (Dictionary)

As Is Market Value

The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date. (Dictionary)

Base Rent

The minimum rent stipulated in a lease. (Dictionary)

Base Year

The year on which escalation clauses in a lease are based. (Dictionary)

Building Common Area

In office buildings, the areas of the building that provide services to building tenants but which are not included in the office area or store area of any specific tenant. These areas may include, but shall not be limited to, main and auxiliary lobbies, atrium spaces at the level of the finished floor, concierge areas or security desks, conference rooms, lounges or vending areas, food service facilities, health or fitness centers, daycare facilities, locker or shower facilities, mail rooms, fire control rooms, fully enclosed courtyards outside the exterior walls, and building core and service areas such as fully enclosed mechanical or equipment rooms. Specifically excluded from building common area are floor common areas, parking space, portions of loading docks outside the building line, and major vertical penetrations. (BOMA)

Building Rentable Area

The sum of all floor rentable areas. Floor rentable area is the result of subtracting from the gross measured area of a floor the major vertical penetrations on that same floor. It is generally fixed for the life of the building and is rarely affected by changes in corridor size or configuration. (BOMA)

Bulk Value

The value of multiple units, subdivided plots, or properties in a portfolio as though sold together in a single transaction.

Certificate of Occupancy (COO)

A formal written acknowledgment by an appropriate unit of local government that a new construction or renovation project is at the stage where it meets applicable health and safety codes and is ready for commercial or residential occupancy. (Dictionary)

Common Area Maintenance (CAM)

The expense of operating and maintaining common areas; may or may not include management charges and usually does not include capital expenditures on tenant improvements or other improvements to the property. (Dictionary)

The amount of money charged to tenants for their shares of maintaining a [shopping] center's common area. The charge that a tenant pays for shared services and facilities such as electricity, security, and maintenance of parking lots. Items charged to common area maintenance may include cleaning services, parking lot sweeping and maintenance, snow removal, security and upkeep. (ICSC – International Council of Shopping Centers, 4th Ed.)

Condominium

A multiunit structure, or a unit within such a structure, with a condominium form of ownership. (Dictionary)

Conservation Easement

An interest in real estate restricting future land use to preservation, conservation, wildlife habitat, or some combination of those uses. A conservation easement may permit farming, timber harvesting, or other uses of a rural nature as well as some types of conservation-oriented development to continue, subject to the easement. (Dictionary)

Contributory Value

A type of value that reflects the amount a property or component of a property contributes to the value of another asset or to the property as a whole.

The change in the value of a property as a whole, whether positive or negative, resulting from the addition or deletion of a property component. Also called deprival value in some countries. (Dictionary)

Debt Coverage Ratio (DCR)

The ratio of net operating income to annual debt service (DCR = NOI/Im), which measures the relative ability of a property to meet its debt service out of net operating income; also called *debt service coverage ratio (DSCR)*. A larger *DCR* typically indicates a greater ability for a property to withstand a reduction of income, providing an improved safety margin for a lender. (Dictionary)

Deed Restriction

A provision written into a deed that limits the use of land. Deed restrictions usually remain in effect when title passes to subsequent owners. (Dictionary)

Depreciation

In appraisal, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date.

In accounting, an allocation of the original cost of an asset, amortizing the cost over the asset's life; calculated using a variety of standard techniques. (Dictionary)

Disposition Value

The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a specified time, which is shorter than the typical exposure time for such a property in that market.
- The property is subjected to market conditions prevailing as of the date of valuation;
- Both the buyer and seller are acting prudently and knowledgeably;
- The seller is under compulsion to sell;
- The buyer is typically motivated;
- Both parties are acting in what they consider to be their best interests;
- An adequate marketing effort will be made during the exposure time;
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Double Net (Net Net) Lease

An alternative term for a type of net lease. In some markets, a net net lease is defined as a lease in which the tenant is responsible to pay both property taxes and premiums for insuring the building(s). (Valbridge)

(The market definition of a double net lease varies depending on the market)

Easement

The right to use another's land for a stated purpose. (Dictionary)

EIFS

Exterior Insulation Finishing System. This is a type of exterior wall cladding system. Sometimes referred to as dry-vit.

Effective Date

The date on which the appraisal or review opinion applies. (SVP)

In a lease document, the date upon which the lease goes into effect. (Dictionary)

Effective Gross Income (EGI)

The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income. (Dictionary)

Effective Rent

Total base rent, or minimum rent stipulated in a lease, over the specified lease term minus rent concessions; the rent that is effectively paid by a tenant net of financial concessions provided by a landlord. (TIs). (Dictionary)

EPDM

Ethylene Propylene Diene Monomer Rubber. A type of synthetic rubber typically used for roof coverings. (Dictionary)

Escalation Clause

A clause in an agreement that provides for the adjustment of a price or rent based on some event or index. e.g., a provision to increase rent if operating expenses increase; also called *escalator clause, expense recovery clause or stop clause*. (Dictionary)

Estoppel Certificate

A signed statement by a party (such as a tenant or a mortgagee) certifying, for another's benefit, that certain facts are correct, such as that a lease exists, that there are no defaults, and that rent is paid to a certain date. (Black's) In real estate, a buyer of rental property typically requests estoppel certificates from existing tenants. Sometimes referred to as an *estoppel letter*. (Dictionary)

Excess Land

Land that is not needed to serve or support the existing use. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and is valued separately. (Dictionary)

Excess Rent
The amount by which contract rent exceeds market rent at the time of the appraisal; created by a lease favorable to the landlord (lessor) and may reflect unusual management, unknowledgeable or unusually motivated parties, a lease execution in an earlier, stronger rental market, or an agreement of the parties. (Dictionary)

Expense Stop
A clause in a lease that limits the landlord's expense obligation, which results in the lessee paying operating expenses above a stated level or amount. (Dictionary)

Exposure Time
The time a property remains on the market.
The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal;

Comment: Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market. (Dictionary)

Extraordinary Assumption
An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

Comment: Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis. (USPAP)

Fee Simple Estate
Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat. (Dictionary)

Floor Common Area
In an office building, the areas on a floor such as washrooms, janitorial closets, electrical rooms, telephone rooms, mechanical rooms, elevator lobbies, and public corridors which are available primarily for the use of tenants on that floor. (BOMA)

Full Service (Gross) Lease
A lease in which the landlord receives stipulated rent and is obligated to pay all of the property's operating and fixed expenses; also called a *full service lease*. (Dictionary)

Furniture, Fixtures, and Equipment (FF&E)
Business trade fixtures and personal property, exclusive of inventory. (Dictionary)

Going-Concern Value
An outdated label for the market value of all the tangible and intangible assets of an established and operating business with an indefinite life, as if sold in aggregate; more accurately termed the *market value of the going concern* or *market value of the total assets of the business.* (Dictionary)

Gross Building Area (GBA)
Total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls of the above-grade area. This includes mezzanines and basements if and when typically included in the market area of the type of property involved.

Gross leasable area plus all common areas.
For residential space, the total area of all floor levels measured from the exterior of the walls and including the superstructure and substructure basement; typically does not include garage space. (Dictionary)

Gross Measured Area
The total area of a building enclosed by the dominant portion (the portion of the inside finished surface of the permanent outer building wall which is 50 percent or more of the vertical floor-to-ceiling dimension, at the given point being measured as one moves horizontally along the wall), excluding parking areas and loading docks (or portions of same) outside the building line. It is generally not used for leasing purposes and is calculated on a floor by floor basis. (BOMA)

Gross Up Method
A method of calculating variable operating expenses in income-producing properties when less than 100% occupancy is assumed. Expenses reimbursed based on the amount of occupied space, rather than on the total building area, are described as "grossed up." (Dictionary)

Gross Retail Sellout
The sum of the separate and distinct market value opinions for each of the units in a condominium, subdivision development, or portfolio of properties, as of the date of valuation. The aggregate of retail values does not represent the value of all the units as though sold together in a single transaction; it is simply the total of the individual market value conclusions. Also called the *aggregate of the retail values, aggregate retail selling price or sum of the retail values.* (Dictionary)

Ground Lease
A lease that grants the right to use and occupy land. Improvements made by the ground lessee typically revert to the ground lessor at the end of the lease term. (Dictionary)

Ground Rent
The rent paid for the right to use and occupy land according to the terms of a ground lease; the portion of the total rent allocated to the underlying land. (Dictionary)

HVAC
Heating, ventilation, air conditioning (HVAC) system. A unit that regulates the temperature and distribution of heat and fresh air throughout a building. (Dictionary)

Highest and Best Use
The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

The use of an asset that maximizes its potential and that is possible, legally permissible, and financially feasible. The highest and best use may be for continuation of an asset's existing use of for some alternative use. This is determined by the use that a market participant would have in mind for the asset when formulating the price that it would be willing to bid. (IVS)

[The] highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future. (Uniform Appraisal Standards for Federal Land Acquisitions) (Dictionary)

Hypothetical Condition
A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comment: Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP)

Insurable Value
A type of value for insurance purposes. (Typically this includes replacement cost less basement excavation, foundation, underground piping and architect's fees). (Dictionary)

Investment Value
The value of a property to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market. (Dictionary)

Just Compensation
In condemnation, the amount of loss for which a property owner is compensated when his or her property is taken. Just compensation should put the owner in as good a position pecuniarily as he or she would have been if the property had not been taken. (Dictionary)

Leased Fee Interest
The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversionary right when the lease expires. (Dictionary)

Leasehold Interest
The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease. (Dictionary)

See also Positive Leasehold and Negative Leasehold.

Lessee (Tenant)
One who has the right to occupancy and use of the property of another for a period of time according to a lease agreement. (Dictionary)

Lessor (Landlord)
One who conveys the rights of occupancy and use to others under a lease agreement. (Dictionary)

Liquidation Value
The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a short time period.
- The property is subjected to market conditions prevailing as of the date of valuation.
- Both the buyer and seller are acting prudently and knowledgeably.
- The seller is under extreme compulsion to sell.
- The buyer is typically motivated.
- Both parties are acting in what they consider to be their best interests.
- A normal marketing effort is not possible due to the brief exposure time.
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.

The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Loan to Value Ratio (LTV)

The ratio between a mortgage loan and the value of the property pledged as security, usually expressed as a percentage. (Dictionary)

Major Vertical Penetrations

Stairs, elevator shafts, flues, pipe shafts, vertical ducts, and the like, and their enclosing walls. Atria, lightwells and similar penetrations above the finished floor are included in this definition. Not included, however, are vertical penetrations built for the private use of a tenant occupying office areas on more than one floor. Structural columns, openings for vertical electric cable or telephone distribution, and openings for plumbing lines are not considered to be major vertical penetrations. (BOMA)

Market Rent

The most probable rent that a property should bring in a competitive and open market under all the conditions requisite to a fair lease transaction, the lessee and the lessor each acting prudently and knowledgeably, and assuming the rent is not affected by undue stimulus. Implicit in this definition is the execution of a lease as of a specified date under conditions whereby:
Lessee and lessor are typically motivated;
Both parties are well informed or well advised, and acting in what they consider their best interests;
Payment is made in terms of cash or in terms of financial arrangements comparable thereto; and
The rent reflects specified terms and conditions, such as permitted uses, use restrictions, expense obligations, duration, concessions, rental adjustments and revaluations, renewal and purchase options, and tenant improvements (TIs). (Appraisal Institute)

Market Value

The most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Marketing Time

An opinion of the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of an appraisal. (Advisory Opinion 7 of the Appraisal Standards Board of the Appraisal Foundation)

Master Lease

A lease in which the fee owner leases a part or the entire property to a single entity (the master lease) in return for a stipulated rent. The master lessee then leases the property to multiple tenants. (Dictionary)

Modified Gross Lease

A lease in which the landlord receives stipulated rent and is obligated to pay some, but not all, of the property's operating and fixed expenses. Since assignment of expenses varies among modified gross leases, expense responsibility must always be specified. In some markets, a modified gross lease may be called a *double net lease, net net lease, partial net lease, or semi-gross le*ase. (Dictionary)

Negative Leasehold

A lease situation in which the market rent is less than the contract rent. (Dictionary)

Operating Expense Ratio

The ratio of total operating expenses to effective gross income (TOE/EGI); the complement of the net income ratio, i.e., OER = 1 – NIR (Dictionary)

Option

A legal contract, typically purchased for a stated consideration, that permits but does not require the holder of the option (known as the *optionee*) to buy, sell, or lease real estate for a stipulated period of time in accordance with specified terms; a unilateral right to exercise a privilege. (Dictionary)

Partial Interest

Divided or undivided rights in real estate that represent less than the whole, i.e., a fractional interest such as a tenancy in common, easement, or life interest. (Dictionary)

Pass Through

A tenant's portion of operating expenses that may be composed of common area maintenance (CAM), real property taxes, property insurance, and any other expenses determined in the lease agreement to be paid by the tenant. (Dictionary)

Percentage Lease
A lease in which the rent or some portion of the rent represents a specified percentage of the volume of business, productivity, or use achieved by the tenant. (Dictionary)

Positive Leasehold
A lease situation in which the market rent is greater than the contract rent. (Dictionary)

Potential Gross Income (PGI)
The total income attributable to property at full occupancy before vacancy and operating expenses are deducted. (Dictionary)

Prospective Future Value Upon Completion
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report. … The prospective market value –as completed- reflects the property's market value as of the time that development is expected to be complete. (Dictionary)

Prospective Future Value Upon Stabilization
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report …The prospective market value – as stabilized – reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. For an income-producing property, stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties. (Dictionary)

Replacement Cost
The estimated cost to construct, at current prices as of a specific date, a substitute for a building or other improvements, using modern materials and current standards, design, and layout. (Dictionary)

Reproduction Cost
The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all of the deficiencies, superadequacies, and obsolescence of the subject building. (Dictionary)

Retrospective Value Opinion
A value opinion effective as of a specified historical date. The term *retrospective* does not define a type of value. Instead, it identifies a value opinion as being effective at some specific prior date. Value as of a historical date is frequently sought in connection with property tax appeals, damage models, lease renegotiation, deficiency judgments, estate tax, and condemnation. Inclusion of the type of value with this term is appropriate, e.g., "retrospective market value opinion." (Dictionary)

Sandwich Leasehold Estate
The interest held by the sandwich leaseholder when the property is subleased to another party; a type of leasehold estate. (Dictionary)

Sublease
An agreement in which the lessee in a prior lease conveys the right of use and occupancy of a property to another, the sublessee, for a specific period of time, which may or may not be coterminous with the underlying lease term. (Dictionary)

Subordination
A contractual arrangement in which a party with a claim to certain assets agrees to make his or her claim junior, or subordinate, to the claims of another party. (Dictionary)

Surplus Land
Land that is not currently needed to support the existing use but cannot be separated from the property and sold off for another use. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel. (Dictionary)

TPO
Thermoplastic polyolefin, a resilient synthetic roof covering.

Triple Net (Net Net Net) Lease
An alternative term for a type of net lease. In some markets, a net net net lease is defined as a lease in which the tenant assumes all expenses (fixed and variable) of operating a property except that the landlord is responsible for structural maintenance, building reserves, and management; also called *NNN lease, net net net lease, or fully net lease*. (Dictionary)

(The market definition of a triple net lease varies; in some cases tenants pay for items such as roof repairs, parking lot repairs, and other similar items.)

Usable Area
The measured area of an office area, store area, or building common area on a floor. The total of all the usable areas for a floor shall equal floor usable area of that same floor. (BOMA)

Value-in-Use

The value of a property assuming a specific use, which may or may not be the property's highest and best use on the effective date of the appraisal. Value in use may or may not be equal to market value but is different conceptually. (Dictionary)

VTAB

Value of the Total Assets of a Business. The value of a going concern (i.e. the business enterprise). (Dictionary)

Qualifications of Arthur L. Schwertz, MAI

Senior Managing Director
Valbridge Property Advisors | South Louisiana

Independent Valuations for a Variable World

State Certifications

Certified General in:
Louisiana
Mississippi
Alabama
Texas
Virginia
California
Arizona
Kentucky
Tennessee
North Carolina
Maryland

Education

Bachelor of Arts
History
Louisiana State University

Contact Details

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504-541-5107 (f)
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2030 Dickory Avenue
Suite 200
New Orleans, LA 70123

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Membership/Affiliations

Member: Appraisal Institute – MAI Designation
Louisiana Chapter President, 2017
Member: Celebration Church Administrative Team (Corporate Secretary)

Appraisal Institute & Related Courses

Continuing education courses taken through the Appraisal Institute and other real estate organizations.

Publications, Seminars Presented, etc.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Austin, Texas, 2019.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Baton Rouge, Louisiana, 2016.

"Appraising Commercial and Complex Properties in an Historic Area", Webinar for the Appraisal Institute, 2015.

"The Unique Appraisal: Case Studies in Appraising Special Purpose Properties", AI Connect 2014 (Appraisal Institute's National Meeting), Austin, Texas, 2014.

Schwertz, Arthur L. 2014. "History Lesson", *Valuation Magazine 2nd Quarter, 2014,* 12 – 13.

Huso, Deborah R. 2013. "On the Waterfront", *Valuation Magazine 2nd Quarter, 2013,* 22 – 27. (Contributor)

Experience

Senior Managing Director
Valbridge Property Advisors | South Louisiana (2013-Present)

Vice-President
Argote, Derbes, Graham, Shuffield & Tatje, Inc. (1992-2013)

Appraisal/valuation and consulting assignments include (but not limited to): Single-family, condominium, apartments, vacant land, funeral homes, amphitheaters, live performance theaters, office buildings, hospitals, nursing homes, specialized healthcare, hotels/motels, service stations, retail, industrial plants, warehouses, fractional interest valuations, contaminated properties, special purpose properties (port facilities, nuclear reactor simulator facility, shipyards, etc.), senior residential and healthcare facilities, feasibility studies, market studies, condemnation, construction defects, litigation support, mediations, and review appraisals.

Mr. Schwertz has provided valuation services in a wide variety of complex civil litigation including real estate, land use cases, condemnation, estate matters, property taxation, construction defect, and bankruptcy/creditors matters.

Qualified as an expert witness in Terrebonne, Jefferson, Orleans, and St. Tammany Parishes, Dallas County, Texas, Indiana Board of Tax Review, United States Court of Federal Claims, United States Court for the Eastern District of Louisiana and the United States Bankruptcy Court for the Middle District of Louisiana.

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Designations, Associations and Professional Awards

- Louisiana Certified General Real Estate Appraiser; License No. G-0932
- Mississippi Certified General Real Estate Appraiser; License No. GA-633
- Alabama Certified General Real Estate Appraiser; License No. G00937
- Texas Certified General Real Estate Appraiser, License No. TX-1337393-G
- California Certified General Real Estate Appraiser, License No. 3005682
- Virginia Certified General Real Estate Appraiser, License No. 400101572
- Arizona Certified General Real Estate Appraiser, License No. 1003038
- North Carolina Certified General Real Estate Appraiser, License No. A8506
- Tennessee Certified General Real Estate Appraiser, License No. 5810
- Kentucky Certified General Real Estate Appraiser, License No. 5470
- Maryland Certified General Real Estate Appraiser, License No. 40034070
- Member of the Appraisal Institute, MAI Certificate No. 12678
- Instructor of the Appraisal Institute
- Secretary, Louisiana Chapter of the Appraisal Institute, 2014
- Treasurer, Louisiana Chapter of the Appraisal Institute, 2015
- Vice-President, Louisiana Chapter of the Appraisal Institute, 2016
- President, Louisiana Chapter of the Appraisal Institute, 2017

Civic Organizations

1982	Eagle Scout, Boy Scouts of America
1983	Vigil Honor Member, Order of the Arrow, Boy Scouts of America
1999 – 2001	Board of Directors, Berean Bible Church, New Orleans, Louisiana
2000 – 2001	Treasurer, Berean Bible Church, New Orleans, Louisiana
2008 – 2010	School Board Chairman, Crescent City Christian School, Metairie, Louisiana.
2008 – Present	Board of Directors, Celebration Church, Metairie, Louisiana
2010 – Present	Corporate Secretary, Celebration Church, Metairie, Louisiana

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Expert Witness Experience

- Expert Witness, United States Court of Federal Claims
- Expert Witness, United States Bankruptcy Court, Middle and Eastern Districts of Louisiana
- Expert Witness, United States Federal Court, Eastern District of Louisiana
- Expert Witness, Civil District Court for the Parish of Orleans, State of Louisiana.
- Expert Witness, State Civil District Court, Dallas County, State of Texas.
- Expert Witness, Louisiana Tax Commission
- Expert Witness, Circuit Court for the City of Norfolk, Virginia
- Expert Witness, 9th JDC, 23rd JDC and 32nd JDC, State of Louisiana
- Expert Witness, Indiana Board of Tax Review, State of Indiana

Court Testimony

2020	GIV Green Tree Mall Investor, LLC v. Clark County Assessor, Petition Nos. 10-011-17-1-4-02088-17, 10-011-18-1-4-00149-20 and 10-011-19-1-4-00150-20, Indiana Board of Tax Review, State of Indiana.
2020	Low Land Investors, LLC, Low Land Construction Co., Inc. v. New Generation Shipbuilding, LLC, Case No. 180743, 32nd Judicial District for Terrebonne Parish, State of Louisiana (Deposition/Testimony)
2020	Cella III, LLC v. Jefferson Parish Hospital District No. 2, Civil Action No. EDLA 19-11528, Bankruptcy No. 19-01145, United States District Court for the Eastern District of Louisiana (Deposition/Testimony)
2020	Elizabeth Sewell, et al v. Sewerage & Water Board of New Orleans, Docket No. 15-4501, Division D-12, Civil District Court, Parish of Orleans, State of Louisiana (Deposition)
2019	Virginia Natural Gas, Inc. v. Colonna's Ship Yard, Incorporated, Case No. CL18-2169, Circuit Court for the City of Norfolk, State of Virginia (Deposition)
2018	Jeannette C. Liebman, Wife of/and Paul E. Ramoni, Jr. v. The United States, Docket No. 14-1165, United States Court of Federal Claims (Testimony)
2016	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 16-22173-001 and 16-22173-002, Louisiana Tax Commission, State of Louisiana. (Testimony)
2016	Appeal of Fulton Development (Harrah's Hotel) v. Orleans Parish Board of Review, Docket No. 16-22171-002, Louisiana Tax Commission, State of Louisiana (Testimony)
2016	Jeannette C. Liebman and Paul E. Ramoni, Jr. v. United States of America, Case No. 14-1165 L, United States Court of Federal Claims (Deposition)
2016	State of Louisiana, Department of Transportation & Development v. Northport Properties Partnership, Et Al, Docket No. 233,894, 9th Judicial District, Parish of Rapides, State of Louisiana (Deposition)
2015	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 15-22173-018 and 15-22173-019, Louisiana Tax Commission, State of Louisiana. (Testimony)

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Court Testimony (Continued)

2015	Doretha Z. Walker et al vs. AMID/Metro Partnership, LLC and City of New Orleans, Docket No. 07-14794, Division H-14, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2015	Sandra Oubre Sotile, Et Al vs Dooley Oubre, Et Al, Docket No. 110,622, 23rd Judicial District Court, Ascension Parish, Louisiana (Deposition)
2014	North Shore Lodging, LLC vs Commonwealth Land Title Insurance Company, Case No. 2:2013cv06070, United States Court for the Eastern District of Louisiana (Deposition)
2014	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 14-22173-003 and 14-22173-004, Louisiana Tax Commission, State of Louisiana. (Testimony)
2014	State Bank of Texas vs. Granbury Hospitality Inc., et al, Cause No. DC-12-06398, 44th State Civil District Court, Dallas County, State of Texas. (Testimony)
2013	Bruce L. Feingerts v Succession of Doris Feingerts, et al, Adversary Proceeding No. 2011-9918, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2012	Consolidated Cases of Percy J. Marchand versus Entergy New Orleans, Inc., Docket No. 2009-12695 AND Omar Duncan, Et Al, vs. Entergy New Orleans, Inc., Docket No. 2010-0714 AND Leroy Anthony Vignaud versus Entergy New Orleans, Inc. Docket No. 2010-5566, Division "C" of the Civil District Court for the Parish of Orleans, State of Louisiana. (Deposition)
2011	Pleasant View Development, LLC v Charles Anthony Bonaventure, Gina Bonaventure Porciau, Charles R. St. Romain, and Patin Engineers and Surveyors, Inc., Adversary Proceeding No. 10-1024, United States Bankruptcy Court, Middle District of Louisiana (Testimony)
2011	1522 R.E. Lee Blvd., LLC v. Bank of New Orleans, Civil District Court for the Parish of Orleans, State of Louisiana (Deposition)

Partial List of Appraisal Assignments Completed

Water and Wastewater Systems

Resolve Water, Slidell, LA

Coast Water, Slidell, LA

H20 Water and Wastewater, St. Tammany Parish, LA

Mo-Dad Utilities, Tangipahoa, Livingston, West Baton Rouge, East Baton Rouge and West Feliciana Parishes, LA

Scientific System, Jacksonville, NC

Center Ridge System, Murray, KY

Blue Creek Utilities, Jacksonville, NC

Delaplain Utilities, Georgetown, KY

River Bluff Wastewater System, River Bluff, KY

Major Retail

Green Tree Mall (±443,933 square feet), Clarksville, IN

Northshore Square Mall (±621,192 square feet), Slidell, LA

The Shoppes at Fremaux (±600,000 square feet), Slidell, LA

Slidell Factory Outlet Mall, Slidell, LA

Southland Mall (±600,000 square feet), Houma, LA

The Plaza (±1,200,000 square feet), New Orleans, LA

Belle Promenade (±750,000 square feet), Marrero, LA

Jax Brewery, New Orleans, LA

River Marketplace Shopping Center, Lafayette, LA

Natchez Mall (±268,857 square feet), Natchez, MS

Bradley Square Mall (568,508 square feet), Cleveland, TN

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Healthcare

Gilchrist at Stadium Place, Baltimore, MD
Savoy Medical Center, Mamou, LA
Methodist Hospital, New Orleans, LA
Lakeland Hospital, New Orleans, LA
Shriner's Hospital, Shreveport, LA
Fairway Surgical Hospital, Covington, LA
Southpark Hospital, Lafayette, LA
St. James Parish Hospital, St. James, LA
Green Clinic and Surgery Center, Ruston, LA
Numerous Nursing Homes throughout Louisiana
Lambeth House Assisted Living, New Orleans, LA
O'Connor Hospital, San Jose, CA
St. Louise Regional Medical Center, Gilroy, CA
St. Vincent Medical Center, Los Angeles, CA
Rosewood Assisted Living Facility, Charlottesville, VA

Industrial

Colonna's Shipyard, Norfolk, VA
Signal International Shipyard, Orange, TX
Signal International Shipyard, Mobile, AL
Signal International Shipyard, Port Arthur, TX
Signal International Shipyard, Pascagoula, MS
Bender Shipyard, Mobile, AL
Plastic Infusion Plant, Hammond, LA
UBT Coal Transfer Facility, Davant, LA
Trinity Yachts, Gulfport, MS
Trinity Yachts, New Orleans, LA
Coca-Cola Facility, Thibodaux, LA
LaShip Shipyard, Houma, LA
Dow Chemical Plant, Norco, LA
Port of St. Bernard, St. Bernard, LA
Owensboro Riverport, Owensboro, KY
Toulouse Street Wharf, Port of New Orleans, LA
Mississippi River Dock, Venice, LA
Port of Iberia, New Iberia, LA.
Kaiser Site, Port of Greater Baton Rouge, LA
Proposed Port of Cameron, Cameron, LA
Union Tank Car Plant, Alexandria, LA

Entertainment/Leisure

Dixie Landing Amusement Park, Baton Rouge, LA
Blue Bayou Water Park, Baton Rouge, LA
Proposed Aqualand Water Park, Dayton, TX
Saenger Theatre, New Orleans, LA
Orpheum Theatre, New Orleans, LA
Vina Robles Amphitheatre, Paso Robles, CA
House of Blues, New Orleans, LA
The Oaks Golf Course, Pass Christian, MS
Money Hill Golf Course, Abita Springs, LA
Pelican Pointe Golf Course, Gonzales, LA
Colonial Country Club, Harahan, LA
O'Neal Theatres, Louisiana/Mississippi
Antoine's Restaurant, New Orleans, LA
AMC Theatres, Metairie/Hammond/Houma, LA
Southern Belle Casino, St. Francisville, LA
Bayou Marina, Casino and Hotel, Chalmette, LA
Lucky Deuces Casino, Greensburg, LA
Lafitte Harbor Marina, Lafitte, LA
Vinot Marina, New Orleans, LA
River Highlands Marina, Ascension Parish, LA
Kemper Marina, Gulfport, MS
C and M Marina, Lafitte, LA
Cypress Cove Marina, Venice, LA
Starlight Movie Studios, New Orleans, LA

Schools

Clifton L. Ganus Academy, New Orleans, LA
Mt. Carmel Academy, New Orleans, LA
Israel Augustine School, New Orleans, LA
Millerville Academy, Baton Rouge, LA
Louise S. McGhee School, New Orleans, LA
Stuart Hall Academy, New Orleans, LA
Believer's Life Academy, Marrero, LA

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Special Purpose Properties

Nuclear Reactor Simulator Facility, St. Francisville, LA

Statewide Economic Obsolescence Study for Hibernia Bank, State of Louisiana

Mitigation Bank, St. James Parish, LA

Mitigation Bank, Livingston Parish, LA

Mitigation Bank, East Baton Rouge Parish, LA

Elmer's Island, Jefferson Parish, LA

USPS Facilities throughout Louisiana and Mississippi

Multi-Family

Shadowlake Apartments, Harvey, LA

Citrus Creek Apartments, Harahan, LA

Palmetto Creek Apartments, Harahan, LA

The Reserve at Acadiana, Lafayette, LA

Gravier Place Apartments, New Orleans, LA

The Saulet Apartments, New Orleans, LA

Town Oaks Apartments, Shreveport, LA

University Edge Apartments, Hattiesburg, MS

Legacy Condominiums Phase I, Gulfport, MS

Legacy Condominiums Phase II, Gulfport, MS

South Beach Condominiums, Biloxi, MS

Hotels

Super 7 Motel, Lafayette, LA

Harrah's Hotel, New Orleans, LA

Candlewoods Suites Hotel, Houma, LA

Candlewoods Suites Hotel, Lafayette, LA

Hyatt House Hotel, Columbus, MS

Hampton Inn, Harahan, LA

Hampton Inn, Metairie, LA

Hampton Inn Convention Center, New Orleans, LA

Hampton Inn Uptown, New Orleans, LA

Hampton Inn, Mobile, AL

Courtyard by Marriott, Metairie, LA, Baton Rouge,

Residence Inn, Metairie, LA

Quality Inn, Opelousas, LA

LaQuinta, Slidell, LA

Historic French Market Inn, New Orleans, LA

Wyndham Hotel, Metairie, LA

Holiday Inn Superdome, New Orleans, LA

Hilton Garden Inn, Kenner, LA

Hilton Garden Inn LA

Office Buildings

Xerox Centre, Kenner, LA

Park Tower, Lafayette, LA

Former Stewart Enterprises Building, Metairie, LA

First NBC Building, New Orleans, LA

Executive Plaza, New Orleans, LA

Chase Tower, Houma, LA

Maison Blanche Building, New Orleans, LA

Yenni Office Building, Harahan, LA

Dominion Tower, New Orleans, LA

Elmwood Tower, Harahan, LA

Freeport-McMoran Building, New Orleans, LA

Entergy Building, New Orleans, LA

1250 Poydras Building, New Orleans, LA

Subdivisions

Ashton Plantation, Luling, LA

Acadiana Subdivision, Marrero, LA

Acadian Villas, Marrero, LA

The Arbors at English Turn, New Orleans, LA

Plantation Acres, Thibodaux, LA

Woodstone Subdivision, Mandeville, LA

Southlake Villages, Kenner, LA

Village Green Subdivision, Harvey, LA

Oak Island Subdivision, New Orleans, LA

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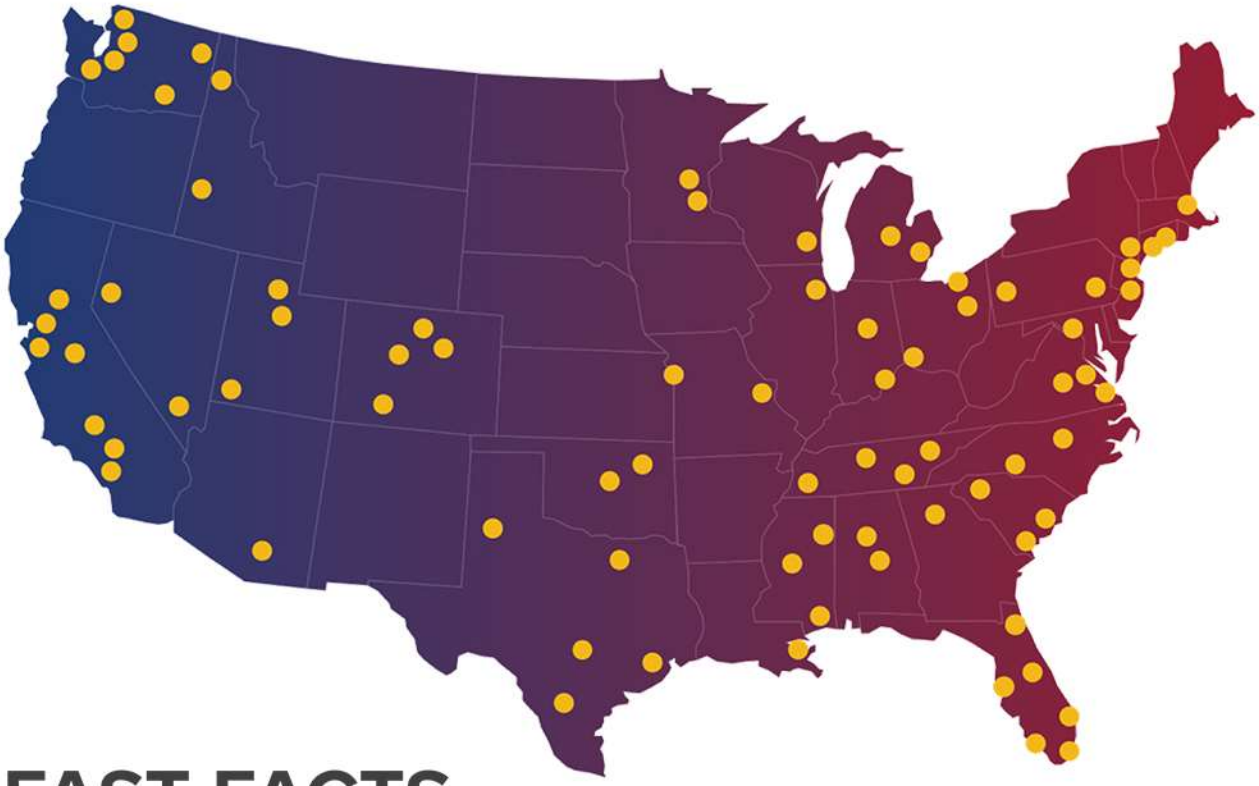

FAST FACTS

COMPANY INFORMATION

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  - Total number of MAI-designated appraisers: 200+ on staff
  - Total number of office locations: 70+ across U.S.
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- Valbridge covers the entire U.S. from coast to coast.
- Valbridge services all property types, including special-purpose properties.
- Valbridge provides independent valuation services. We are not owned by a brokerage firm or investment company.
- Every Valbridge office is led by a senior managing director who holds the MAI designation of the Appraisal Institute.
- Valbridge is owned by our local office leaders.
- Valbridge welcomes single-property assignments as well as portfolio, multi-market and other bulk-property engagements.

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Spring 2021

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Appraisal Report

Ellsworth Point and Backwater Heights
11927 N Ellsworth Terrace
Dunnellon, Citrus County, Florida 34433

Report Date: 5/13/2021

FOR:

Central States Water Resources
Mr. Todd Thomas
Vice-President
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

Client Number:

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5/13/2021

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Mr. Todd Thomas
Vice-President
Central States Water Resources
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

RE: Appraisal Report
Ellsworth Point and Backwater Heights
11927 N Ellsworth Terrace
Dunnellon, Citrus County, Florida 34433

Dear Mr. Thomas:

In accordance with your request, we have performed an appraisal of the above referenced property. This appraisal report sets forth the pertinent data gathered, the techniques employed, and the reasoning leading to our value opinions. This letter of transmittal does not constitute an appraisal report and the rationale behind the value opinion(s) reported cannot be adequately understood without the accompanying appraisal report.

The subject property, as referenced above, is located in Ellsworth Point and Backwater Heights subdivisions and is further identified as tax parcel numbers 18E16S310210000700090. The subject site is a 7.18-acre or 312,761-square-foot parcel. The subject is a water distribution system located in Ellsworth Point and Backwater Heights Subdivisions. The system consists of 6.93 acres of easements for water pipes and pump stations and 0.25 acres of Fee Simple Area.

We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them.

The client in this assignment is Central States Water Resources and the intended user of this report is Central States Water Resources and no others. The sole intended use is for regulatory filings. The value opinions reported herein are subject to the definitions, assumptions, limiting conditions, and certifications contained in this report.

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The findings and conclusions are further contingent upon the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results:

Extraordinary Assumptions:

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of utility lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions:

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Based on the analysis contained in the following report, our value conclusions are summarized as follows:

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Fee Simple	Easement
Effective Date of Value	May 11, 2021	May 11, 2021
Value Conclusion	**$4,000**	**$42,000**

Respectfully submitted,
Valbridge Property Advisors | New Orleans

Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

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Summary of Salient Facts

Property Identification

Property Name	Ellsworth Point and Backwater Heights
Property Address	11927 N Ellsworth Terrace Dunnellon, Citrus County, Florida 34433
Latitude & Longitude	29.036632, -82.521406
Tax Parcel Number	18E16S310210000700090
Property Owner	Citrus Waterworks Inc

Site

Zoning	(Rural Residential District)
FEMA Flood Map No.	55093C0301E
Flood Zone	X
Easement Land Area	301,871 square feet
Fee Simple Land Area	10,890 square feet
Total Land Area	312,761 square feet

Valuation Opinions

Highest & Best Use - As Vacant	Residential
Reasonable Exposure Time	Six months or less
Reasonable Marketing Time	Six months or less

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Fee Simple	Easement
Effective Date of Value	May 11, 2021	May 11, 2021
Value Conclusion	**$4,000**	**$42,000**

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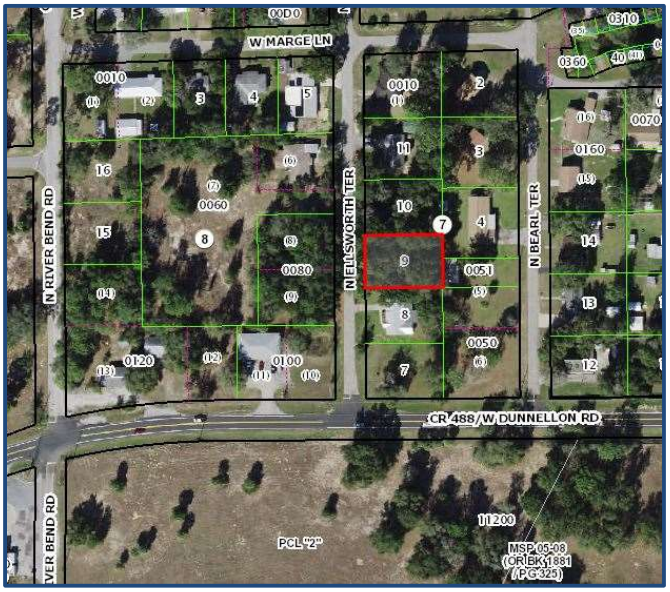
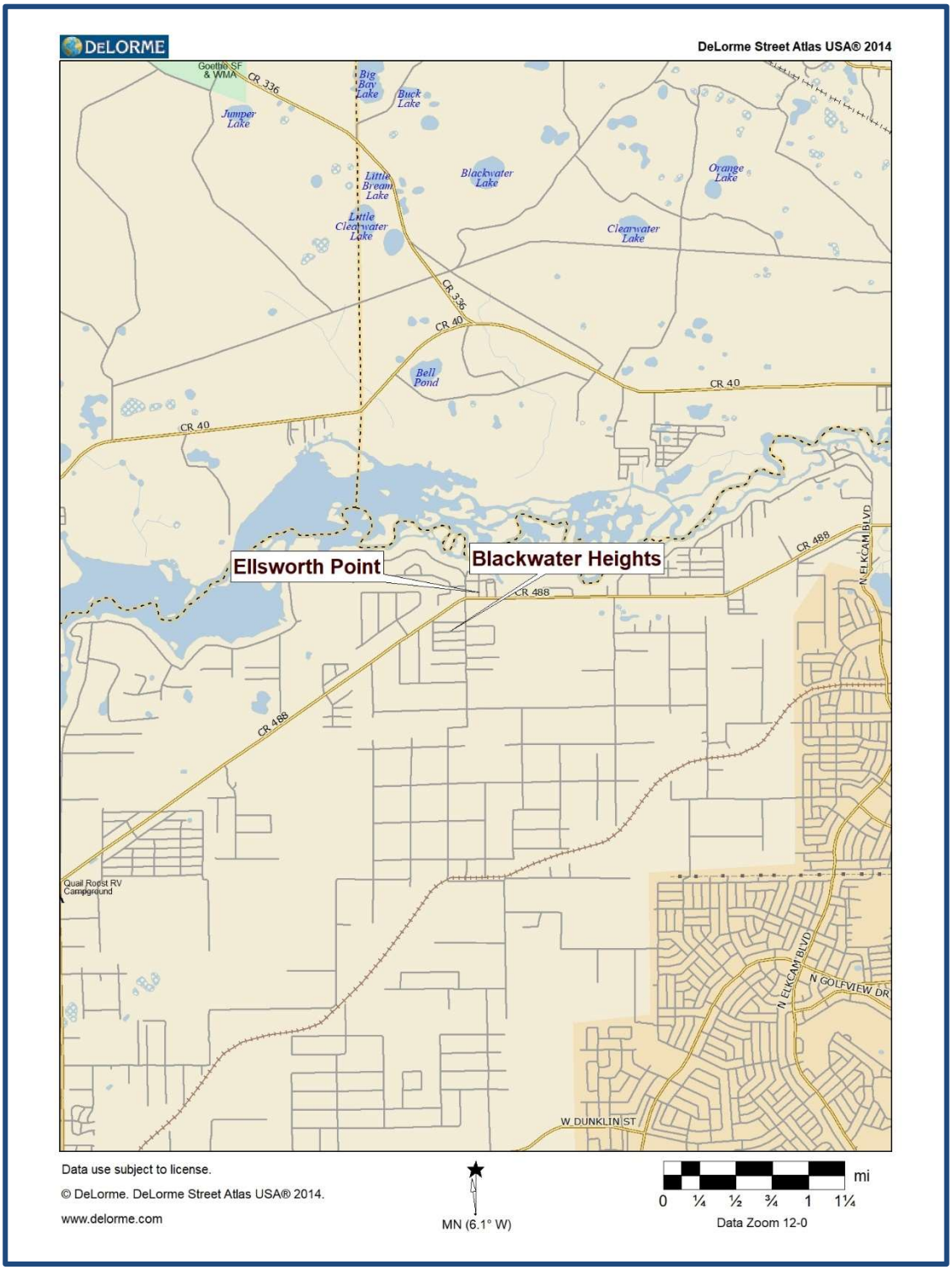
Aerial and Front Views

AERIAL VIEW



Location Map



Introduction

Client and Intended Users of the Appraisal

The client in this assignment is Central States Water Resources and the sole intended user of this report is Central States Water Resources. Under no circumstances shall any of the following parties be entitled to use or rely on the appraisal or this appraisal report:

i. The borrower(s) on any loans or financing relating to or secured by the subject property,

ii. Any guarantor(s) of such loans or financing; or

iii. Principals, shareholders, investors, members or partners in such borrower(s) or guarantors.

Intended Use of the Appraisal

The sole intended use of this report is for regulatory filings.

Real Estate Identification

The subject property is located at 11927 N Ellsworth Terrace, Dunnellon, Citrus County, Florida 34433. The subject property is further identified by the tax parcel number 18E16S310210000700090.

Legal Description

The subject consists of easements for pipes and pump stations for water distribution system and tax parcel 18E16S310210000700090.

Use of Real Estate as of the Effective Date of Value

As of the effective date of value, the subject was a utility property.

Use of Real Estate as Reflected in this Appraisal

The opinion of value for the subject as is reflects use as a utility property.

Ownership of the Property

According to Public Records, title to the subject property is vested in Citrus Waterworks Inc.

History of the Property

Ownership of the subject property has changed within the past three years. The current owner acquired the subject property on 12-21-2020 for a reported consideration of $11,300. The grantor was Sunshine Utilities of Central Florida according to Act of Transfer 3120/2067. Four parcels transferred via Quit Claim Deed with one being Easement Interest Parcel We have considered and analyzed the known history of the subject in the development of our opinions and conclusions.

Analysis of Listings/Offers/Contracts

The subject is not currently listed for sale or under contract for sale..

Type and Definition of Value

The appraisal problem is to develop an opinion of the market value of the subject property. "Market Value," as used in this appraisal, is defined as "the most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus." Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- *Buyer and seller are typically motivated.*
- *Both parties are well informed or well advised, each acting in what they consider their own best interests;*
- *A reasonable time is allowed for exposure in the open market;*
- *Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and*
- *The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale."1*

The value conclusions apply to the value of the subject property under the market conditions presumed on the effective date of value. Please refer to the Glossary in the Addenda section for additional definitions of terms used in this report.

Valuation Scenarios, Property Rights Appraised, and Effective Dates of Value

Per the scope of our assignment we developed opinions of value for the subject property under the following scenarios of value:

Valuation Scenario	Effective Date of Value
As Is Market Value of the Fee Simple Interest	May 11, 2021
As Is Market Value of the Easement Interest	May 11, 2021

Date of Report

The date of this report is 5/13/2021.

List of Items Requested but Not Provided

- All information requested has been provided

Assumptions and Conditions of the Appraisal

This appraisal assignment and the opinions reported herein are subject to the General Assumptions and Limiting Conditions contained in the report and the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results.

[1] Source: Code of Federal Regulations, Title 12, Banks and Banking, Part 722.2-Definitions

Extraordinary Assumptions

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of utility lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Scope of Work

The elements addressed in the Scope of Work are (1) the extent to which the subject property is identified, (2) the extent to which the subject property is inspected, (3) the type and extent of data researched, (4) the type and extent of analysis applied, (5) the type of appraisal report prepared, and (6) the inclusion or exclusion of items of non-realty in the development of the value opinion. These items are discussed as below.

Extent to Which the Property Was Identified

The three components of the property identification are summarized as follows:

- Legal Characteristics - The subject was legally identified via public Records and information provided by the client.
- Economic Characteristics - Economic characteristics of the subject property were identified via information provided by the client, public records, market surveys, discussions with market participants, and the files of Valbridge Property Advisors, as well as a comparison to properties with similar locational and physical characteristics.
- Physical Characteristics - The subject was physically identified via a general inspection of the property by the appraiser via aerial maps.

Type and Extent of Data Researched

We researched and analyzed: (1) market area data, (2) property-specific market data, (3) zoning and land-use data, and (4) current data on comparable listings and transactions. We also interviewed people familiar with the subject market/property type.

Type and Extent of Analysis Applied (Valuation Methodology)

We observed surrounding land use trends, the condition of any improvements, demand for the subject property, and relevant legal limitations in concluding a highest and best use. We then valued the subject based on that highest and best use conclusion.

Appraisers develop an opinion of property value with specific appraisal procedures that reflect three distinct methods of data analysis: the Cost Approach, Sales Comparison Approach, and Income Capitalization Approach. One or more of these approaches are used in all estimations of value.

- Sales Comparison Approach - In the Sales Comparison Approach, value is indicated by recent sales and/or listings of comparable properties in the market, with the appraiser analyzing the impact of material differences in both economic and physical elements between the subject and the comparables.
- Direct Capitalization: Land Residual Method - The Land Residual Methodology involves estimating the residual net income to the land by deducting from total potential income the portion attributable to the improvements, assuming development of the site at its highest and best use. The residual income is capitalized at an appropriate rate, resulting in an indication of land value.
- Direct Capitalization: Ground Rent Capitalization – A market derived capitalization rate is applied to the net income resulting from a ground lease. This can represent the leased fee or

fee simple interest, depending on whether the income potential is reflective of a lease in place or market rental rates.

- Yield Capitalization: Subdivision Development Method – Also known as Discounted Cash Flow Analysis (DCF), the methodology is most appropriate for land having multiple lot development in the near term as the highest and best use. The current site value is represented by discounting the anticipated cash flow to a present value, taking into consideration all necessary costs of development, maintenance, administration, and sales throughout the absorption period.

All of these approaches to value were considered. We assessed the availability of data and applicability of each approach to value within the context of the characteristics of the subject property and the needs and requirements of the client. Based on this assessment, we relied upon the Sales Comparison Approach. Further discussion of the extent of our analysis and the methodology of each approach is provided later in the respective valuation sections.

Appraisal Conformity and Report Type

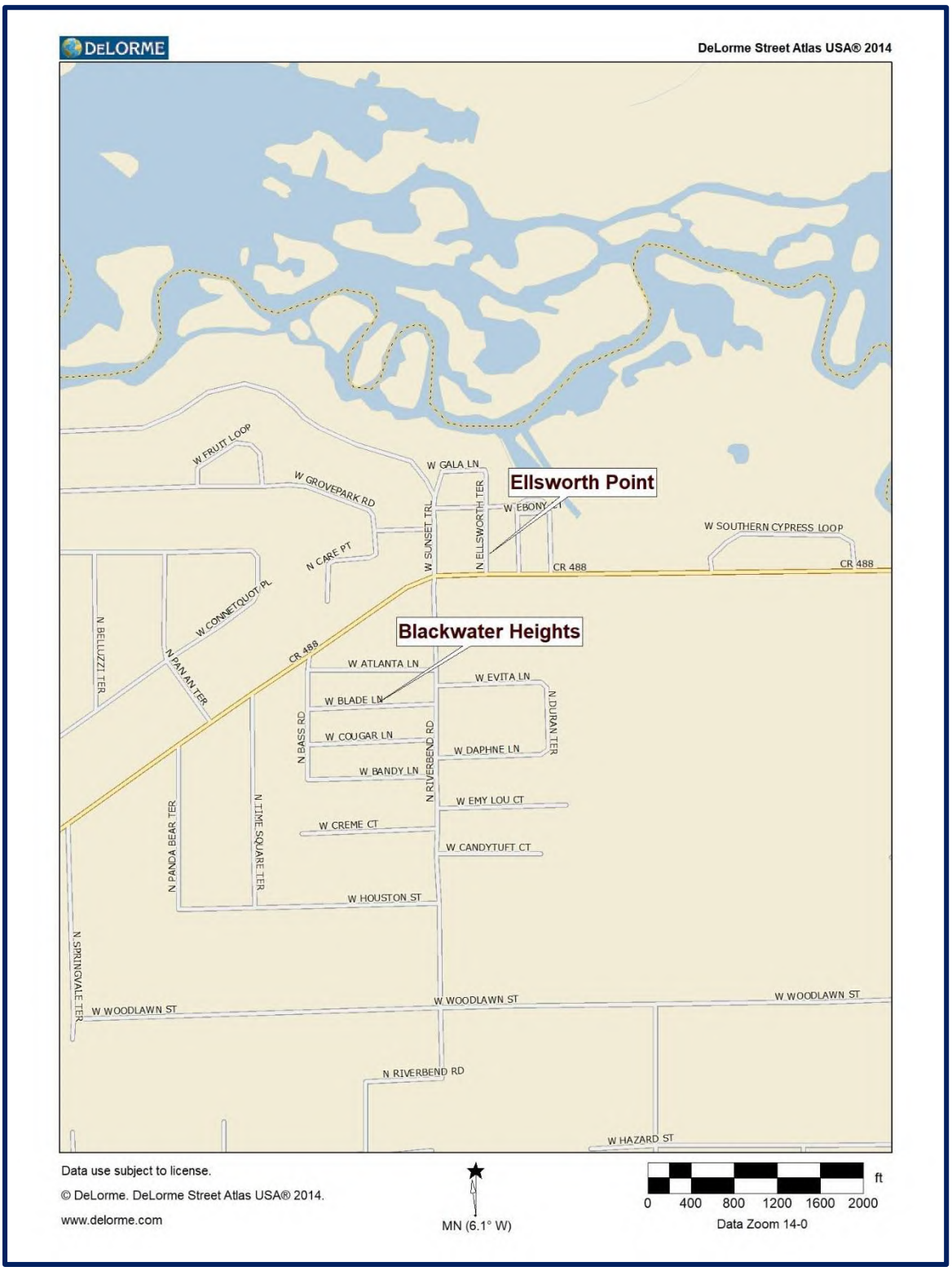
We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them. This is an Appraisal Report as defined by the Uniform Standards of Professional Appraisal Practice under Standards Rule 2-2a.

Personal Property/FF&E

All items of non-realty are excluded from this analysis. The opinion of market value developed herein is reflective of real estate only.

City and Neighborhood Analysis

NEIGHBORHOOD MAP



Overview

The subject is located in Dunnellon in Citrus County, Florida.

The area of the subject is characterized by being an outer suburban area of the town of Dunnellon.

Neighborhood Location and Boundaries

The subject neighborhood is located in the western section of Dunnellon. The area is semi-rural in nature.
The neighborhood is bounded by Lake Rousseau to the north, US Hwy 41 to the east, Citrus Springs Community to the south, and Lake Rousseau to the west.

Transportation Access

Within the immediate area of the subject property, transportation access helps define the character of its development. Major travel and commuter routes within the area of the subject property include W Dunnellon Road. Access to the area is considered average.

Neighborhood Land Use

The subject neighborhood is located in an area with primarily residential land uses. An approximate breakdown of the development in the area is as follows:

LAND USES

Developed	50%
Residential	*90%*
Retail	*10%*
Office	*0%*
Industrial	*0%*
Vacant	50%
Total	**100%**

Land Use Trends

The neighborhood is not experiencing a change in land use.

Demographics

The following table depicts the area demographics in Dunnellon within a one-, three-, and five-mile radius from the subject.

Neighborhood Demographics

Radius (Miles)	1 Mile	3 Mile	5 Mile
Population Summary			
2010 Population	579	3,396	14,995
2020 Population Estimate	645	3,746	16,635
2025 Population Projection	681	3,937	17,526
Annual % Change (2020 - 2025)	1.1%	1.0%	1.1%
Housing Unit Summary			
2010 Housing Units	353	1,896	8,139
% Owner Occupied	65.7%	65.2%	66.5%
% Renter Occupied	9.3%	12.0%	14.1%
2020 Housing Units	390	2,070	8,866
% Owner Occupied	65.6%	64.8%	65.8%
% Renter Occupied	9.7%	12.5%	14.9%
2025 Housing Units	410	2,168	9,280
% Owner Occupied	65.6%	64.9%	66.0%
% Renter Occupied	9.5%	12.5%	14.8%
Annual % Change (2020 - 2025)	1.3%	1.0%	0.9%
Income Summary			
2020 Median Household Income Estimate	$43,893	$40,406	$42,632
2025 Median Household Income Projection	$47,557	$43,606	$45,261
Annual % Change	1.6%	1.5%	1.2%
2020 Per Capita Income Estimate	$25,584	$23,716	$23,794
2025 Per Capita Income Projection	$28,779	$26,512	$26,180
Annual % Change	2.4%	2.3%	1.9%

Source: ESRI (ArcGIS) *(Lat: 29.036632, Lon: -82.521406)*

Within a three-mile radius, the reported population is 3,746 with a projected growth rate of approximately 1.0% annually. There are 2,070 housing units within that three-mile radius. The growth rate is expected to be 1.0% annually. Most of the housing is owner-occupied. Our research indicates that property values in the area are stable.

Within a three-mile radius, the median household income is **$**40,406. Looking ahead, annual household income growth is projected at **1.5**% per year. The average income figures suggest that the inhabitants are within the lower to middle income brackets.

Nuisances & External Obsolescence

Neighborhood properties have adequate levels of maintenance. No adverse or unfavorable factors were observed.

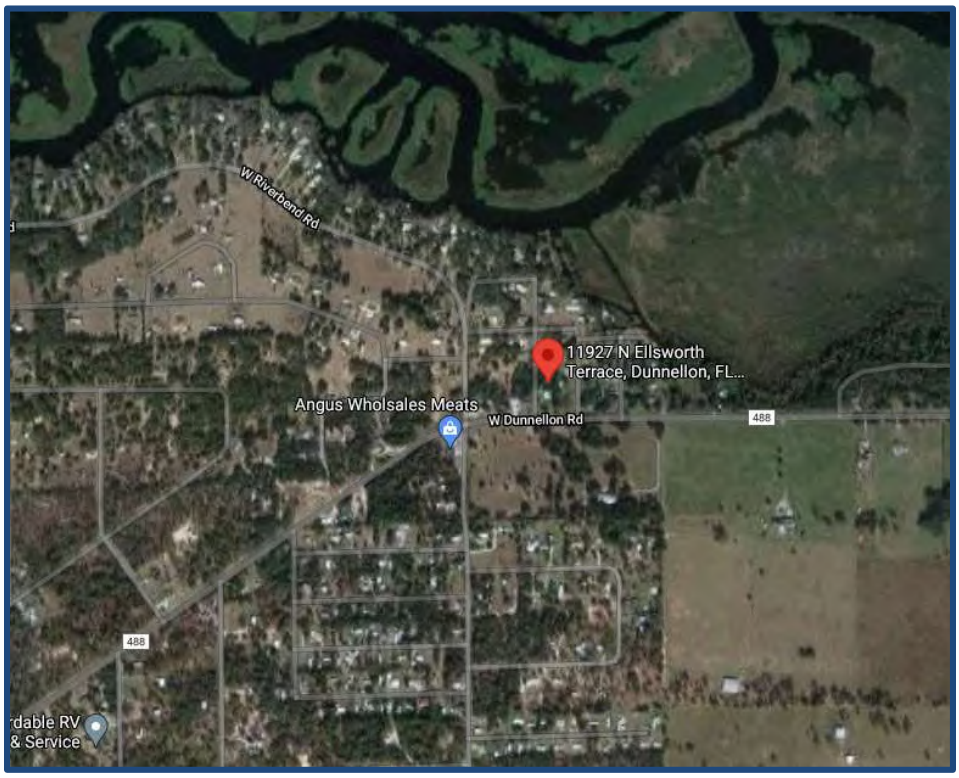
Neighborhood Life Cycle

Most neighborhoods are classified as being in four stages: **growth**, **stability**, **decline**, and **renewal**. Overall, the subject neighborhood is in the Stable stage of its life cycle.

Immediate Area Uses

The below aerial photo exhibits the uses located in the subject's immediate vicinity.

IMMEDIATE AREA USES



Source: Google Maps

Uses along W Dunnellon Road in the vicinity of the subject are primarily residential in nature. Recognized uses in the immediate area of the subject include single family residential uses. As shown above, the density of uses in the area is low.

Analysis and Conclusions

The neighborhood is characterized by an semi-rural outer suburban of Dunnellon.

Site Description

The subject site is located in Ellsworth Point and Backwater Heights subdivisions. The characteristics of the site are summarized as follows:

Site Characteristics

Gross Land Area:	7.18 Acres or 312,761 SF
Fee Simple Land Area:	0.25 Acres or 10,890 SF
Easement Land Area:	6.93 Acres or 301,871 SF6.93
Topography:	Mild
Drainage:	Adequate
Utilities:	All Available

Flood Zone Data

Flood Map Panel/Number:	55093C0301E
Flood Map Date:	11-16-2011
Flood Zone:	X
	Flood Zone X is described as an area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Flood Insurance is not considered mandatory in this Flood Zone.

Zoning Designation

Zoning Jurisdiction:	Citrus County
Zoning Classification:	Rural Residential District,
Zoning Comments:	This category represents primarily those areas that are transitional between higher density developments and agricultural or conservation uses. This district is intended to preserve economically viable agricultural land and large tracts of residential land

Analysis/Comments on Site

The subject is a water distribution system located in Ellsworth Point and Backwater Heights Subdivisions. The system consists of 6.93 acres of easements for water pipes and pump stations and 0.25 acres of Fee Simple Area.

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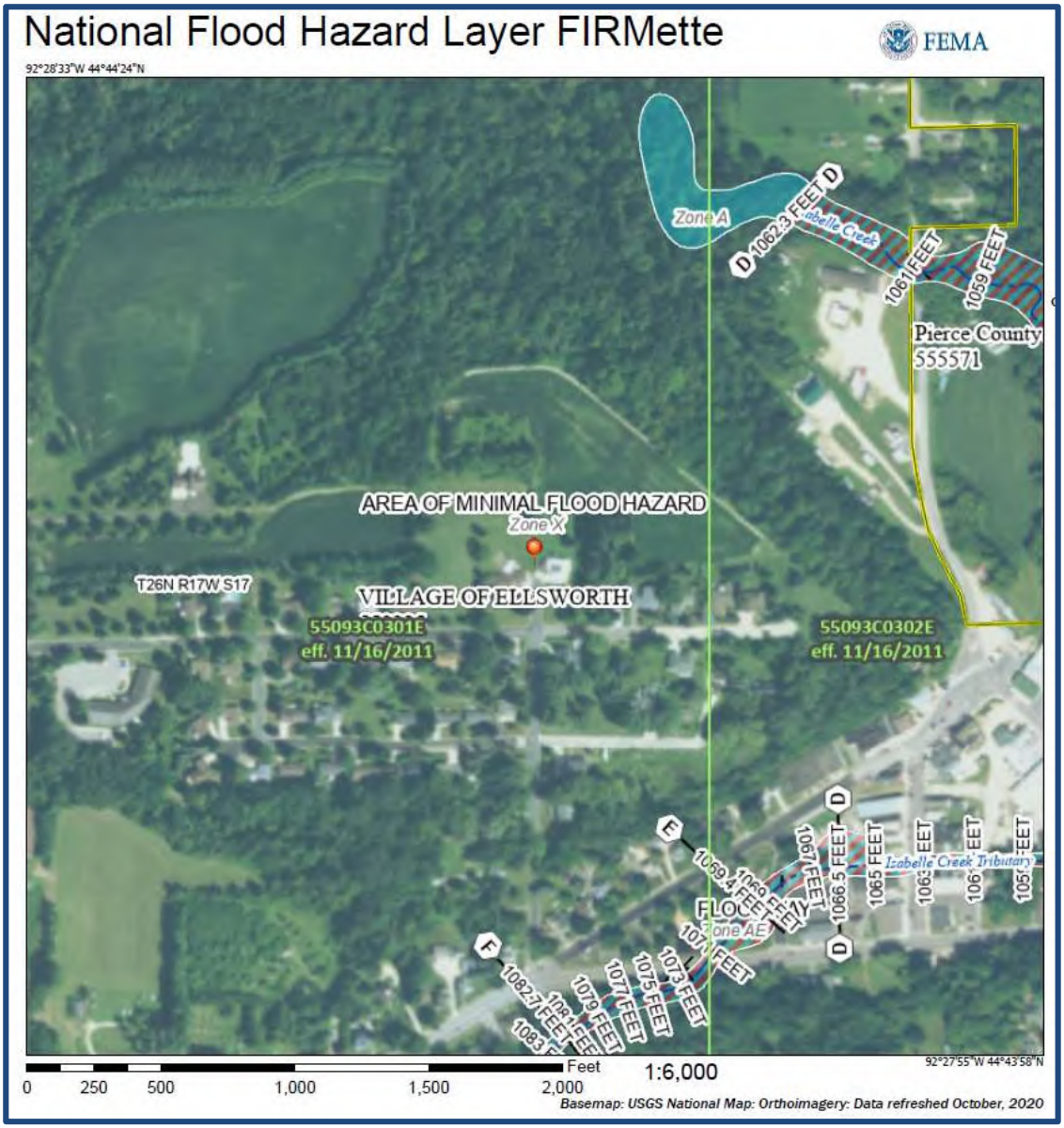
SERVICE AREA MAP

FLOOD MAP


National Flood Hazard Layer FIRMette
FEMA
92°28'33"W 44°44'24"N
Zone A
D
1062.3 FEET
Izabelle Creek
1061 FEET
1059 FEET
Pierce County
555571
AREA OF MINIMAL FLOOD HAZARD
Zone X
T26N R17W S17
VILLAGE OF ELLSWORTH
55093C0301E
eff. 11/16/2011
55093C0302E
eff. 11/16/2011
E
1069.4 FEET
1067 FEET
1066.5 FEET
1065 FEET
Izabelle Creek Tributary
FLOOD
Zone AE
1071 FEET
1073 FEET
1075 FEET
1077 FEET
1079 FEET
F
1082.7 FEET
Feet
0
250
500
1,000
1,500
2,000
1:6,000
92°27'55"W 44°43'58"N
Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Highest and Best Use

The Highest and Best Use of a property is the use that is legally permissible, physically possible, and financially feasible which results in the highest value. An opinion of the highest and best use results from consideration of the criteria noted above under the market conditions or likely conditions as of the effective date of value. Determination of highest and best use results from the judgment and analytical skills of the appraiser. It represents an opinion, not a fact. In appraisal practice, the concept of highest and best use represents the premise upon which value is based.

Analysis of Highest and Best Use As Though Vacant

The primary determinants of the highest and best use of the property As Though Vacant are the issues of (1) Legal permissibility, (2) Physical possibility, (3) Financial feasibility, and (4) Maximum productivity.

Legally Permissible

The subject site is zoned Rural Residential District, which controls the general nature of permissible uses but is appropriate for the location and physical elements of the subject property, providing for a consistency of use with the general neighborhood. The location of the subject property is appropriate for the uses allowed, as noted previously, and a change in zoning is unlikely. There are no known easements, encroachments, covenants or other use restrictions that would unduly limit or impede development.

Physically Possible

The physical attributes allow for a number of potential uses. Elements such as size, shape, availability of utilities, known hazards (flood, environmental, etc.), and other potential influences are described in the Site Description and have been considered. There are no items of a physical nature which would adversely impact development with the legal permitted uses.

Financially Feasible

The probable use of the site for residential development conforms to the pattern of land use in the market area. A review of published yield, rental and occupancy rates suggest that there is a balanced supply and demand is sufficient to support construction costs and ensure timely absorption of additional inventory in this market. Therefore, near-term speculative development of the subject site is financially feasible.

Maximally Productive

Among the financially feasible uses, the use that results in the highest value (the maximally productive use) is the highest and best use. Considering these factors, the maximally productive use as though vacant is for residential use.

Conclusion of Highest and Best Use As Though Vacant

The conclusion of the highest and best use As Though Vacant is for residential use.

Most Probable Buyer

As of the date of value, the most probable buyer of the subject property is an owner user.

Land Valuation

Methodology

Site Value is most often estimated using the sales comparison approach. This approach develops an indication of market value by analyzing closed sales, listings, or pending sales of properties similar to the subject, focusing on the difference between the subject and the comparables using all appropriate elements of comparison. This approach is based on the principles of supply and demand, balance, externalities, and substitution, or the premise that a buyer would pay no more for a specific property than the cost of obtaining a property with the same quality, utility, and perceived benefits of ownership.

The process of developing the sales comparison approach consists of the following analyses: (1) researching and verifying transactional data, (2) selecting relevant units of comparison, (3) analyzing and adjusting the comparable sales for differences in various elements of comparison, and (4) reconciling the adjusted sales into a value indication for the subject site.

Unit of Comparison

The unit of comparison depends on land use economics and how buyers and sellers use the property. The unit of comparison in this analysis is per usable square foot.

Elements of Comparison

Elements of comparison are the characteristics or attributes of properties and transactions that cause the prices of real estate to vary. The primary elements of comparison considered in sales comparison analysis are as follows: (1) property rights conveyed, (2) financing terms, (3) conditions of sale, (4) expenditures made immediately after purchase, (5) market conditions, (6) location and (7) physical characteristics.

Comparable Sales Data

To obtain and verify comparable sales of vacant land properties, we conducted a search of public records, field surveys, interviews with knowledgeable real estate professionals in the area, and a review of our internal database.

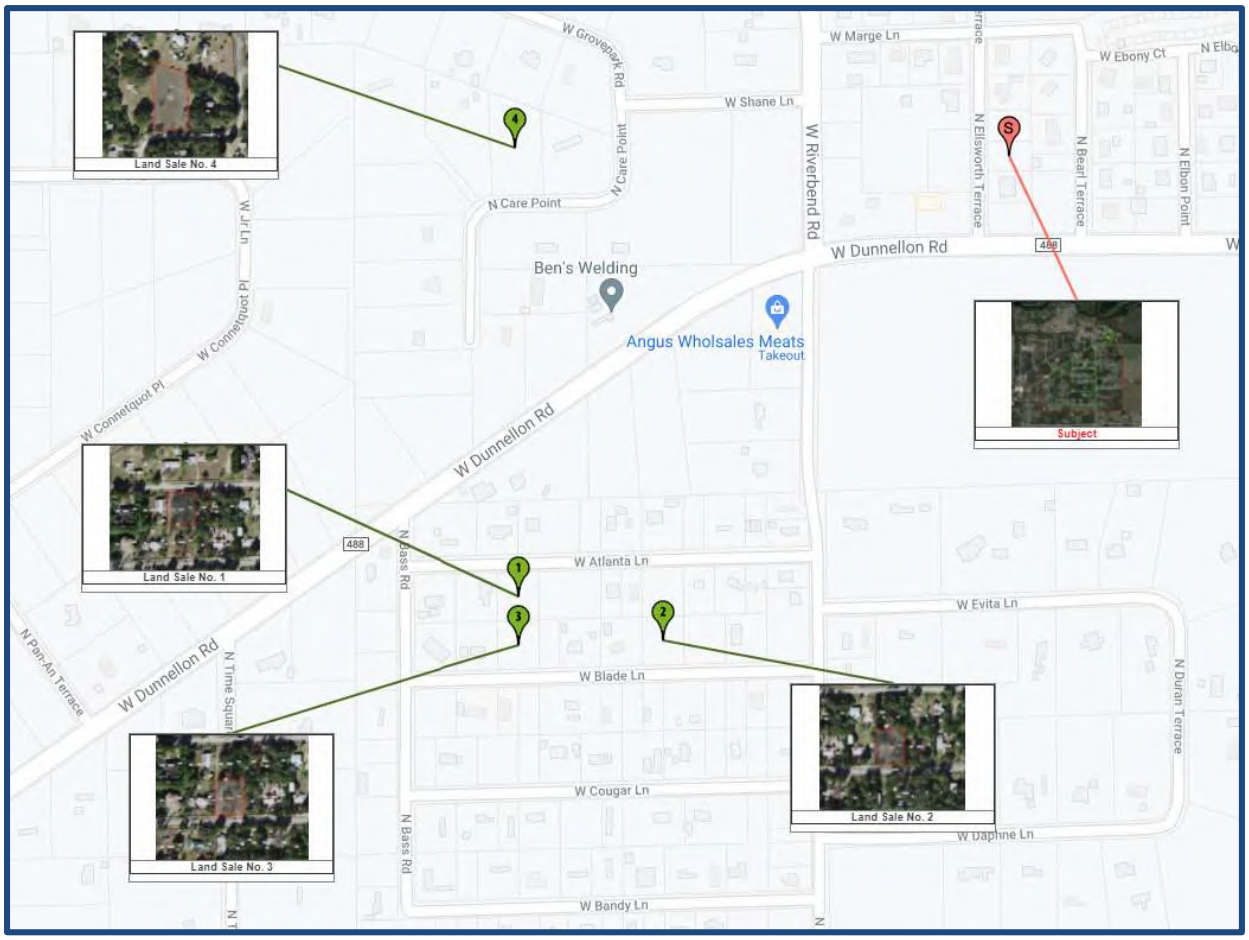
We included four sales in our analysis, as these sales were judged to be the most comparable to develop an indication of market value for the subject property.

The following is a table summarizing each sale comparable and a map illustrating the location of each in relation to the subject.

Land Sales Summary

	Sale # 1	Sale # 2	Sale # 3	Sale # 4
Sale ID	1534561	1534568	1534573	1534576
Property Name				
Sale Status	Closed	Closed	Closed	Closed
Location	5404 W Atlanta Lane Dunnellon, Florida	5335 W Blade Lane Dunnellon, Florida	5417 W Blade Lane Dunnellon, Florida	11908 N Care Point Dunnellon, Florida
Tax ID	1205433	1205581	1205549	3389893
Sales Data				
Date of Sale	8/15/2020	9/21/2018	6/29/2020	5/23/2020
Sales Price	$6,000	$8,000	$3,500	$10,000
Price/Usable Square Foot	$0.36	$0.48	$0.21	$0.25
Grantor	Linda R. Carrick	Gerald Vannoy	Linda R. Carrick	Robert Griffith & Judith Esposito-Griffith
Grantee	Gullion Warren & Riggs Deena	Stacy Bistodeau	Charles Whitaker	Tony Gilmer & Patrena Baker
Recording Number				
Book/Page Number	3085/103	2929/1157	3071/4987	3064/529
Document Number				
Property Rights Conveyed	Fee Simple	Fee Simple	Fee Simple	Fee Simple
Financing	Cash to Seller	Cash to Seller	Cash to Seller	Cash to Seller
Conditions of Sale	Typical	Typical	Typical	Typical
Physical Characteristics				
Usable Land Area (Sq. Ft.)	16,758	16,774	16,769	40,388
Gross Land Area (Sq. Ft.)	16,758	16,774	16,769	40,388
Zoning	RUR	RUR	RUR	CLR
Flood Zone	X	X	X	X
Topography	Level	Level	Level	Level
Shape	Rectangular	Rectangular	Rectangular	Trapezoidal
Utilities	All are available.	All are available	All are available	All are available.
Corner Exposure	Interior	Interior	Interior	Interior
Access/Visibility	Average/Average	Average/Average	Average/Average	Average/Average

COMPARABLE SALES MAP



Land Sales Comparison Analysis

When necessary, adjustments were made for differences in various elements of comparison, including property rights conveyed, financing terms, conditions of sale, expenditures made immediately after purchase, market conditions, location, and other physical characteristics. If the element in comparison is considered superior to that of the subject, we applied a negative adjustment. Conversely, a positive adjustment was applied if inferior. A summary of the elements of comparison follows.

Elements of Comparison	
Real Property Rights Conveyed	Adjustments for differences in property rights appraised.
Financing Terms	Comparable properties are adjusted for differences between a transaction's financing terms and those assumed in the valuation of the subject property - e.g. seller financing, loan assumption, non-market terms.
Conditions of Sale	Comparable properties are adjusted for differences in the motivations of either the buyer or a seller in the transaction. In the instant case, no adjustments are required.
Expenditures After Purchase	Comparable properties can be adjusted for any additional investment required to make the property salable – e. g. costs to cure deferred maintenance, costs to demolish and remove any portion of the improvements, costs to remediate environmental contamination and/or costs to occupy or stabilize the property.
Market Conditions	Comparable properties can be adjusted for changes in market conditions because of inflation, deflation, fluctuations in supply and demand, or other factors.
Location	Location adjustments may be required when the locational characteristics of a comparable are different from those of the subject.
Size	The size adjustment addresses variance in the physical size of the comparables and that of the subject, as a larger parcel typically commands a lower price per unit than a smaller parcel. As this is an estimate of the Across the Fence Value, it is assumed that the subject would be part of a lot similar in size to the comparables. As such, no positive adjustments for size are warranted.
Shape /Depth	This element address variance in utility due to shape and/or depth. No adjustments are warranted.
Corner Exposure	Tracts featuring corner influence typically command higher prices in the market place, as opposed to interior locations. As the subject includes both corner and interior lots, no adjustments are warranted.

Summary of Adjustments

Presented on the following page is a summary of the adjustments made to the sale comparables. As noted earlier, these quantitative adjustments were based on our market research, best judgment, and experience in the appraisal of similar properties.

LAND SALES ADJUSTMENT GRID

	Subject	Sale # 1	Sale # 2	Sale # 3	Sale # 4
Sale ID		1534561	1534568	1534573	1534576
Date of Value & Sale	May-21	August-20	September-18	June-20	May-20
Unadjusted Sales Price		$6,000	$8,000	$3,500	$10,000
Usable Square Feet	10,890	16,758	16,774	16,769	40,388
Unadjusted Sales Price per Usable Sq. Ft.		**$0.36**	**$0.48**	**$0.21**	**$0.25**
Transactional Adjustments					
Property Rights Conveyed	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*
Adjusted Sales Price		$0.36	$0.48	$0.21	$0.25
Financing Terms	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*
Adjusted Sales Price		$0.36	$0.48	$0.21	$0.25
Conditions of Sale	*Typical*	*Typical*	*Typical*	*Typical*	*Typical*
Adjusted Sales Price		$0.36	$0.48	$0.21	$0.25
Expenditures after Sale					
Adjusted Sales Price		**$0.36**	**$0.48**	**$0.21**	**$0.25**
Market Conditions Adjustments					
Elapsed Time from Date of Value		*0.74 years*	*2.64 years*	*0.87 years*	*0.97 years*
Market Trend Through	May-21	-	-	-	-
Analyzed Sales Price		**$0.36**	**$0.48**	**$0.21**	**$0.25**
Physical Adjustments					
Location	*11927 N Ellsworth Terrace Dunnellon, Florida*	*5404 W Atlanta Lane Dunnellon, Florida*	*5335 W Blade Lane Dunnellon, Florida*	*5417 W Blade Lane Dunnellon, Florida*	*11908 N Care Point Dunnellon, Florida*
Adjustment		-	-	-	-
Size	*10,890 sf*	*16,758 sf*	*16,774 sf*	*16,769 sf*	*40,388 sf*
Adjustment		5.0%	5.0%	5.0%	19.0%
Net Physical Adjustment		5.0%	5.0%	5.0%	19.0%
Adjusted Sales Price per Usable Square Foot		**$0.38**	**$0.50**	**$0.22**	**$0.29**

Conclusion

From the market data available, we used four land sales in competitive market areas which were adjusted based on pertinent elements of comparison. The following table summarizes the unadjusted and adjusted unit prices:

Land Sale Statistics

Metric	Unadjusted	Analyzed	Adjusted
Min. Sales Price per Usable Square Foot	$0.21	$0.21	$0.22
Max. Sales Price per Usable Square Foot	$0.48	$0.48	$0.50
Median Sales Price per Usable Square Foot	$0.30	$0.30	$0.34
Mean Sales Price per Usable Square Foot	$0.32	$0.32	$0.35

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.35 per usable square foot. Thus, the estimated "Across the Fence Value" of the Fee Simple Interest in the subject easements is calculated to be $106,000..

Valuation of the Fee Simple Area

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.35 per usable square foot. Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject Fee Simple area is calculated as follows:

Calculation of Fee Simple Value

Site Area		Unit Value		Market Value
10,890 Square Feet	X	$0.35	=	$4,000

Valuation of the Easement

The use to which the subject easements will be put to is for underground water and sewer pipes. As such, little or no surface improvements will be possible, but access across the surface will be allowed. It is my opinion, therefore, that such an easement will encumber approximately 40% of the ownership rights in the subject.

Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject easements is calculated as follows:

Calculation of Easement Value

Site Area		Unit Value		Market Value of Fee		Easement Use	Indicated Value of Easement
301,871 square feet	X	$0.35 PSF	=	$106,000	X	40%	$42,000

Exposure Time and Marketing Period

Based on statistical information about days on market, escrow length, and marketing times gathered through national investor surveys, sales verification, and interviews of market participants, marketing and exposure time estimates of six months or less and six months or less, respectively, are considered reasonable and appropriate for the subject property.

General Assumptions and Limiting Conditions

This appraisal is subject to the following general assumptions and limiting conditions:

1. The legal description – if furnished to us – is assumed to be correct.
2. No responsibility is assumed for legal matters, questions of survey or title, soil or subsoil conditions, engineering, availability or capacity of utilities, or other similar technical matters. The appraisal does not constitute a survey of the property appraised. All existing liens and encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management unless otherwise noted.
3. Unless otherwise noted, the appraisal will value the property as though free of contamination. Valbridge Property Advisors | New Orleans will conduct no hazardous materials or contamination inspection of any kind. It is recommended that the client hire an expert if the presence of hazardous materials or contamination poses any concern.
4. The stamps and/or consideration placed on deeds used to indicate sales are in correct relationship to the actual dollar amount of the transaction.
5. Unless otherwise noted, it is assumed there are no encroachments, zoning violations or restrictions existing in the subject property.
6. The appraiser is not required to give testimony or attendance in court by reason of this appraisal, unless previous arrangements have been made.
7. Unless expressly specified in the engagement letter, the fee for this appraisal does not include the attendance or giving of testimony by Appraiser at any court, regulatory or other proceedings, or any conferences or other work in preparation for such proceeding. If any partner or employee of Valbridge Property Advisors | New Orleans is asked or required to appear and/or testify at any deposition, trial, or other proceeding about the preparation, conclusions or any other aspect of this assignment, client shall compensate Appraiser for the time spent by the partner or employee in appearing and/or testifying and in preparing to testify according to the Appraiser's then current hourly rate plus reimbursement of expenses.
8. The values for land and/or improvements, as contained in this report, are constituent parts of the total value reported and neither is (or are) to be used in making a summation appraisal of a combination of values created by another appraiser. Either is invalidated if so used.
9. The dates of value to which the opinions expressed in this report apply are set forth in this report. We assume no responsibility for economic or physical factors occurring at some point at a later date, which may affect the opinions stated herein. The forecasts, projections, or operating estimates contained herein are based on current market conditions and anticipated short-term supply and demand factors and are subject to change with future conditions. Appraiser is not responsible for determining whether the date of value requested by Client is appropriate for Client's intended use.
10. The sketches, maps, plats and exhibits in this report are included to assist the reader in visualizing the property. The appraiser has made no survey of the property and assumed no responsibility in connection with such matters.
11. The information, estimates and opinions, which were obtained from sources outside of this office, are considered reliable. However, no liability for them can be assumed by the appraiser.

12. Possession of this report, or a copy thereof, does not carry with it the right of publication. Neither all, nor any part of the content of the report, or copy thereof (including conclusions as to property value, the identity of the appraisers, professional designations, reference to any professional appraisal organization or the firm with which the appraisers are connected), shall be disseminated to the public through advertising, public relations, news, sales, or other media without prior written consent and approval.
13. No claim is intended to be expressed for matters of expertise that would require specialized investigation or knowledge beyond that ordinarily employed by real estate appraisers. We claim no expertise in areas such as, but not limited to, legal, survey, structural, environmental, pest control, mechanical, etc.
14. This appraisal was prepared for the sole and exclusive use of the client for the function outlined herein. Any party who is not the client or intended user identified in the appraisal or engagement letter is not entitled to rely upon the contents of the appraisal without express written consent of Valbridge Property Advisors | New Orleans and Client. The Client shall not include partners, affiliates, or relatives of the party addressed herein. The appraiser assumes no obligation, liability or accountability to any third party.
15. Distribution of this report is at the sole discretion of the client, but third-parties not listed as an intended user on the face of the appraisal or the engagement letter may not rely upon the contents of the appraisal. In no event shall client give a third-party a partial copy of the appraisal report. We will make no distribution of the report without the specific direction of the client.
16. This appraisal shall be used only for the function outlined herein, unless expressly authorized by Valbridge Property Advisors | New Orleans.
17. This appraisal shall be considered in its entirety. No part thereof shall be used separately or out of context.
18. Unless otherwise noted in the body of this report, this appraisal assumes that the subject property does not fall within the areas where mandatory flood insurance is effective. Unless otherwise noted, we have not completed nor have we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property. Because the appraiser is not a surveyor, he or she makes no guarantees, express or implied, regarding this determination.
19. The flood maps are not site specific. We are not qualified to confirm the location of the subject property in relation to flood hazard areas based on the FEMA Flood Insurance Rate Maps or other surveying techniques. It is recommended that the client obtain a confirmation of the subject property's flood zone classification from a licensed surveyor.
20. If the appraisal is for mortgage loan purposes 1) we assume satisfactory completion of improvements if construction is not complete, 2) no consideration has been given for rent loss during rent-up unless noted in the body of this report, and 3) occupancy at levels consistent with our "Income and Expense Projection" are anticipated.
21. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures which would render it more or less valuable. No responsibility is assumed for such conditions or for engineering which may be required to discover them.

22. Our inspection included an observation of the land and improvements thereon only. It was not possible to observe conditions beneath the soil or hidden structural components within the improvements. We inspected the buildings involved, and reported damage (if any) by termites, dry rot, wet rot, or other infestations as a matter of information, and no guarantee of the amount or degree of damage (if any) is implied. Condition of heating, cooling, ventilation, electrical and plumbing equipment is considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. Should the client have concerns in these areas, it is the client's responsibility to order the appropriate inspections. The appraiser does not have the skill or expertise to make such inspections and assumes no responsibility for these items.
23. This appraisal does not guarantee compliance with building code and life safety code requirements of the local jurisdiction. It is assumed that all required licenses, consents, certificates of occupancy or other legislative or administrative authority from any local, state or national governmental or private entity or organization have been or can be obtained or renewed for any use on which the value conclusion contained in this report is based unless specifically stated to the contrary.
24. When possible, we have relied upon building measurements provided by the client, owner, or associated agents of these parties. In the absence of a detailed rent roll, reliable public records, or "as-built" plans provided to us, we have relied upon our own measurements of the subject improvements. We follow typical appraisal industry methods; however, we recognize that some factors may limit our ability to obtain accurate measurements including, but not limited to, property access on the day of inspection, basements, fenced/gated areas, grade elevations, greenery/shrubbery, uneven surfaces, multiple story structures, obtuse or acute wall angles, immobile obstructions, etc. Professional building area measurements of the quality, level of detail, or accuracy of professional measurement services are beyond the scope of this appraisal assignment.
25. We have attempted to reconcile sources of data discovered or provided during the appraisal process, including assessment department data. Ultimately, the measurements that are deemed by us to be the most accurate and/or reliable are used within this report. While the measurements and any accompanying sketches are considered to be reasonably accurate and reliable, we cannot guarantee their accuracy. Should the client desire more precise measurement, they are urged to retain the measurement services of a qualified professional (space planner, architect or building engineer) as an alternative source. If this alternative measurement source reflects or reveals substantial differences with the measurements used within the report, upon request of the client, the appraiser will submit a revised report for an additional fee.
26. In the absence of being provided with a detailed land survey, we have used assessment department data to ascertain the physical dimensions and acreage of the property. Should a survey prove this information to be inaccurate, upon request of the client, the appraiser will submit a revised report for an additional fee.
27. If only preliminary plans and specifications were available for use in the preparation of this appraisal, and a review of the final plans and specifications reveals substantial differences upon request of the client the appraiser will submit a revised report for an additional fee.

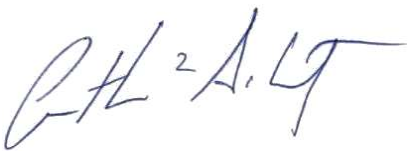
28. Unless otherwise stated in this report, the value conclusion is predicated on the assumption that the property is free of contamination, environmental impairment or hazardous materials. Unless otherwise stated, the existence of hazardous material was not observed by the appraiser and the appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation or other potentially hazardous materials may affect the value of the property. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required for discovery. The client is urged to retain an expert in this field, if desired.
29. The Americans with Disabilities Act ("ADA") became effective January 26, 1992. We have not made a specific compliance survey of the property to determine if it is in conformity with the various requirements of the ADA. It is possible that a compliance survey of the property, together with an analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this could have a negative effect on the value of the property. Since we have no direct evidence relating to this issue, we did not consider possible noncompliance with the requirements of ADA in developing an opinion of value.
30. This appraisal applies to the land and building improvements only. The value of trade fixtures, furnishings, and other equipment, or subsurface rights (minerals, gas, and oil) were not considered in this appraisal unless specifically stated to the contrary.
31. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated, unless specifically stated to the contrary.
32. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute prediction of future operating results. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance.
33. Any estimate of insurable value, if included within the scope of work and presented herein, is based upon figures developed consistent with industry practices. However, actual local and regional construction costs may vary significantly from our estimate and individual insurance policies and underwriters have varied specifications, exclusions, and non-insurable items. As such, we strongly recommend that the Client obtain estimates from professionals experienced in establishing insurance coverage. This analysis should not be relied upon to determine insurance coverage and we make no warranties regarding the accuracy of this estimate.
34. The data gathered in the course of this assignment (except data furnished by the Client) shall remain the property of the Appraiser. The appraiser will not violate the confidential nature of the appraiser-client relationship by improperly disclosing any confidential information furnished to the appraiser. Notwithstanding the foregoing, the Appraiser is authorized by the client to disclose all or any portion of the appraisal and related appraisal data to appropriate representatives of the Appraisal Institute if such disclosure is required to enable the appraiser to comply with the Bylaws and Regulations of such Institute now or hereafter in effect.

35. You and Valbridge Property Advisors | New Orleans both agree that any dispute over matters in excess of $5,000 will be submitted for resolution by arbitration. This includes fee disputes and any claim of malpractice. The arbitrator shall be mutually selected. If Valbridge Property Advisors | New Orleans and the client cannot agree on the arbitrator, the presiding head of the Local County Mediation & Arbitration panel shall select the arbitrator. Such arbitration shall be binding and final. In agreeing to arbitration, we both acknowledge that, by agreeing to binding arbitration, each of us is giving up the right to have the dispute decided in a court of law before a judge or jury. In the event that the client, or any other party, makes a claim against Valbridge Property Advisors | New Orleans or any of its employees in connections with or in any way relating to this assignment, the maximum damages recoverable by such claimant shall be the amount actually received by Valbridge Property Advisors | New Orleans for this assignment, and under no circumstances shall any claim for consequential damages be made.
36. Valbridge Property Advisors | New Orleans shall have no obligation, liability, or accountability to any third party. Any party who is not the "client" or intended user identified on the face of the appraisal or in the engagement letter is not entitled to rely upon the contents of the appraisal without the express written consent of Valbridge Property Advisors | New Orleans. "Client" shall not include partners, affiliates, or relatives of the party named in the engagement letter. Client shall hold Valbridge Property Advisors | New Orleans and its employees harmless in the event of any lawsuit brought by any third party, lender, partner, or part-owner in any form of ownership or any other party as a result of this assignment. The client also agrees that in case of lawsuit arising from or in any way involving these appraisal services, client will hold Valbridge Property Advisors | New Orleans harmless from and against any liability, loss, cost, or expense incurred or suffered by Valbridge Property Advisors | New Orleans in such action, regardless of its outcome.
37. The Valbridge Property Advisors office responsible for the preparation of this report is independently owned and operated by VPA of South Louisiana, Inc.. Neither Valbridge Property Advisors, Inc., nor any of its affiliates has been engaged to provide this report. Valbridge Property Advisors, Inc. does not provide valuation services, and has taken no part in the preparation of this report.
38. If any claim is filed against any of Valbridge Property Advisors, Inc., a Florida Corporation, its affiliates, officers or employees, or the firm providing this report, in connection with, or in any way arising out of, or relating to, this report, or the engagement of the firm providing this report, then (1) under no circumstances shall such claimant be entitled to consequential, special or other damages, except only for direct compensatory damages, and (2) the maximum amount of such compensatory damages recoverable by such claimant shall be the amount actually received by the firm engaged to provide this report.
39. This report and any associated work files may be subject to evaluation by Valbridge Property Advisors, Inc., or its affiliates, for quality control purposes.
40. Acceptance and/or use of this appraisal report constitutes acceptance of the foregoing general assumptions and limiting conditions.
41. The global outbreak of a "novel coronavirus" (known as COVID-19) was officially declared a pandemic by the World Health Organization (WHO). It is currently unknown what direct, or indirect, effect, if any, this event may have on the national economy, the local economy or the market in which the subject property is located. The reader is cautioned, and reminded that the conclusions presented in this appraisal report apply only as of the effective date(s) indicated. The appraiser makes no representation as to the effect on the subject property of this event, or any event, subsequent to the effective date of the appraisal.

Certification – Arthur L. Schwertz

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. The undersigned performed services regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
9. Arthur L. Schwertz did not personally inspected the subject property via a review of Aerial Maps.
10. R. Carter Higdon provided significant real property appraisal assistance to the person signing this certification.
11. The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
12. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
13. As of the date of this report, the undersigned has completed the continuing education program for Designated Members of the Appraisal Institute.



Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

Addenda

Glossary

Qualifications

- Arthur L. Schwertz, MAI - Senior Managing Director

Information on Valbridge Property Advisors

Office Locations

Glossary

Definitions are taken from The Dictionary of Real Estate Appraisal, 6th Edition (Dictionary), the Uniform Standards of Professional Appraisal Practice (USPAP), and Building Owners and Managers Association International (BOMA).

Absolute Net Lease

A lease in which the tenant pays all expenses including structural maintenance, building reserves, and management; often a long-term lease to a credit tenant. (Dictionary)

Amortization

The process of retiring a debt or recovering a capital investment, typically through scheduled, systematic repayment of the principal; a program of periodic contributions to a sinking fund or debt retirement fund. (Dictionary)

As Is Market Value

The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date. (Dictionary)

Base Rent

The minimum rent stipulated in a lease. (Dictionary)

Base Year

The year on which escalation clauses in a lease are based. (Dictionary)

Building Common Area

In office buildings, the areas of the building that provide services to building tenants but which are not included in the office area or store area of any specific tenant. These areas may include, but shall not be limited to, main and auxiliary lobbies, atrium spaces at the level of the finished floor, concierge areas or security desks, conference rooms, lounges or vending areas, food service facilities, health or fitness centers, daycare facilities, locker or shower facilities, mail rooms, fire control rooms, fully enclosed courtyards outside the exterior walls, and building core and service areas such as fully enclosed mechanical or equipment rooms. Specifically excluded from building common area are floor common areas, parking space, portions of loading docks outside the building line, and major vertical penetrations. (BOMA)

Building Rentable Area

The sum of all floor rentable areas. Floor rentable area is the result of subtracting from the gross measured area of a floor the major vertical penetrations on that same floor. It is generally fixed for the life of the building and is rarely affected by changes in corridor size or configuration. (BOMA)

Bulk Value

The value of multiple units, subdivided plots, or properties in a portfolio as though sold together in a single transaction.

Certificate of Occupancy (COO)

A formal written acknowledgment by an appropriate unit of local government that a new construction or renovation project is at the stage where it meets applicable health and safety codes and is ready for commercial or residential occupancy. (Dictionary)

Common Area Maintenance (CAM)

The expense of operating and maintaining common areas; may or may not include management charges and usually does not include capital expenditures on tenant improvements or other improvements to the property. (Dictionary)

The amount of money charged to tenants for their shares of maintaining a [shopping] center's common area. The charge that a tenant pays for shared services and facilities such as electricity, security, and maintenance of parking lots. Items charged to common area maintenance may include cleaning services, parking lot sweeping and maintenance, snow removal, security and upkeep. (ICSC – International Council of Shopping Centers, 4th Ed.)

Condominium

A multiunit structure, or a unit within such a structure, with a condominium form of ownership. (Dictionary)

Conservation Easement

An interest in real estate restricting future land use to preservation, conservation, wildlife habitat, or some combination of those uses. A conservation easement may permit farming, timber harvesting, or other uses of a rural nature as well as some types of conservation-oriented development to continue, subject to the easement. (Dictionary)

Contributory Value

A type of value that reflects the amount a property or component of a property contributes to the value of another asset or to the property as a whole.

The change in the value of a property as a whole, whether positive or negative, resulting from the addition or deletion of a property component. Also called deprival value in some countries. (Dictionary)

Debt Coverage Ratio (DCR)

The ratio of net operating income to annual debt service (DCR = NOI/Im), which measures the relative ability of a property to meet its debt service out of net operating income; also called *debt service coverage ratio (DSCR)*. A larger *DCR* typically indicates a greater ability for a property to withstand a reduction of income, providing an improved safety margin for a lender. (Dictionary)

Deed Restriction

A provision written into a deed that limits the use of land. Deed restrictions usually remain in effect when title passes to subsequent owners. (Dictionary)

Depreciation

In appraisal, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date.

In accounting, an allocation of the original cost of an asset, amortizing the cost over the asset's life; calculated using a variety of standard techniques. (Dictionary)

Disposition Value

The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a specified time, which is shorter than the typical exposure time for such a property in that market.
- The property is subjected to market conditions prevailing as of the date of valuation;
- Both the buyer and seller are acting prudently and knowledgeably;
- The seller is under compulsion to sell;
- The buyer is typically motivated;
- Both parties are acting in what they consider to be their best interests;
- An adequate marketing effort will be made during the exposure time;
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Double Net (Net Net) Lease

An alternative term for a type of net lease. In some markets, a net net lease is defined as a lease in which the tenant is responsible to pay both property taxes and premiums for insuring the building(s). (Valbridge)

(The market definition of a double net lease varies depending on the market)

Easement

The right to use another's land for a stated purpose. (Dictionary)

EIFS

Exterior Insulation Finishing System. This is a type of exterior wall cladding system. Sometimes referred to as dry-vit.

Effective Date

The date on which the appraisal or review opinion applies. (SVP)

In a lease document, the date upon which the lease goes into effect. (Dictionary)

Effective Gross Income (EGI)

The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income. (Dictionary)

Effective Rent

Total base rent, or minimum rent stipulated in a lease, over the specified lease term minus rent concessions; the rent that is effectively paid by a tenant net of financial concessions provided by a landlord. (TIs). (Dictionary)

EPDM

Ethylene Propylene Diene Monomer Rubber. A type of synthetic rubber typically used for roof coverings. (Dictionary)

Escalation Clause

A clause in an agreement that provides for the adjustment of a price or rent based on some event or index. e.g., a provision to increase rent if operating expenses increase; also called *escalator clause, expense recovery clause or stop clause*. (Dictionary)

Estoppel Certificate

A signed statement by a party (such as a tenant or a mortgagee) certifying, for another's benefit, that certain facts are correct, such as that a lease exists, that there are no defaults, and that rent is paid to a certain date. (Black's) In real estate, a buyer of rental property typically requests estoppel certificates from existing tenants. Sometimes referred to as an *estoppel letter*. (Dictionary)

Excess Land

Land that is not needed to serve or support the existing use. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and is valued separately. (Dictionary)

Excess Rent
The amount by which contract rent exceeds market rent at the time of the appraisal; created by a lease favorable to the landlord (lessor) and may reflect unusual management, unknowledgeable or unusually motivated parties, a lease execution in an earlier, stronger rental market, or an agreement of the parties. (Dictionary)

Expense Stop
A clause in a lease that limits the landlord's expense obligation, which results in the lessee paying operating expenses above a stated level or amount. (Dictionary)

Exposure Time
The time a property remains on the market.
The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal;

Comment: Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market. (Dictionary)

Extraordinary Assumption
An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

Comment: Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis. (USPAP)

Fee Simple Estate
Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat. (Dictionary)

Floor Common Area
In an office building, the areas on a floor such as washrooms, janitorial closets, electrical rooms, telephone rooms, mechanical rooms, elevator lobbies, and public corridors which are available primarily for the use of tenants on that floor. (BOMA)

Full Service (Gross) Lease
A lease in which the landlord receives stipulated rent and is obligated to pay all of the property's operating and fixed expenses; also called a *full service lease*. (Dictionary)

Furniture, Fixtures, and Equipment (FF&E)
Business trade fixtures and personal property, exclusive of inventory. (Dictionary)

Going-Concern Value
An outdated label for the market value of all the tangible and intangible assets of an established and operating business with an indefinite life, as if sold in aggregate; more accurately termed the *market value of the going concern* or *market value of the total assets of the business.* (Dictionary)

Gross Building Area (GBA)
Total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls of the above-grade area. This includes mezzanines and basements if and when typically included in the market area of the type of property involved.

Gross leasable area plus all common areas.
For residential space, the total area of all floor levels measured from the exterior of the walls and including the superstructure and substructure basement; typically does not include garage space. (Dictionary)

Gross Measured Area
The total area of a building enclosed by the dominant portion (the portion of the inside finished surface of the permanent outer building wall which is 50 percent or more of the vertical floor-to-ceiling dimension, at the given point being measured as one moves horizontally along the wall), excluding parking areas and loading docks (or portions of same) outside the building line. It is generally not used for leasing purposes and is calculated on a floor by floor basis. (BOMA)

Gross Up Method
A method of calculating variable operating expenses in income-producing properties when less than 100% occupancy is assumed. Expenses reimbursed based on the amount of occupied space, rather than on the total building area, are described as "grossed up." (Dictionary)

Gross Retail Sellout
The sum of the separate and distinct market value opinions for each of the units in a condominium, subdivision development, or portfolio of properties, as of the date of valuation. The aggregate of retail values does not represent the value of all the units as though sold together in a single transaction; it is simply the total of the individual market value conclusions. Also called the *aggregate of the retail values, aggregate retail selling price or sum of the retail values.* (Dictionary)

Ground Lease
A lease that grants the right to use and occupy land. Improvements made by the ground lessee typically revert to the ground lessor at the end of the lease term. (Dictionary)

Ground Rent
The rent paid for the right to use and occupy land according to the terms of a ground lease; the portion of the total rent allocated to the underlying land. (Dictionary)

HVAC
Heating, ventilation, air conditioning (HVAC) system. A unit that regulates the temperature and distribution of heat and fresh air throughout a building. (Dictionary)

Highest and Best Use
The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

The use of an asset that maximizes its potential and that is possible, legally permissible, and financially feasible. The highest and best use may be for continuation of an asset's existing use of for some alternative use. This is determined by the use that a market participant would have in mind for the asset when formulating the price that it would be willing to bid. (IVS)

[The] highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future. (Uniform Appraisal Standards for Federal Land Acquisitions) (Dictionary)

Hypothetical Condition
A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comment: Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP)

Insurable Value
A type of value for insurance purposes. (Typically this includes replacement cost less basement excavation, foundation, underground piping and architect's fees). (Dictionary)

Investment Value
The value of a property to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market. (Dictionary)

Just Compensation
In condemnation, the amount of loss for which a property owner is compensated when his or her property is taken. Just compensation should put the owner in as good a position pecuniarily as he or she would have been if the property had not been taken. (Dictionary)

Leased Fee Interest
The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversionary right when the lease expires. (Dictionary)

Leasehold Interest
The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease. (Dictionary)

See also Positive Leasehold and Negative Leasehold.

Lessee (Tenant)
One who has the right to occupancy and use of the property of another for a period of time according to a lease agreement. (Dictionary)

Lessor (Landlord)
One who conveys the rights of occupancy and use to others under a lease agreement. (Dictionary)

Liquidation Value
The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a short time period.
- The property is subjected to market conditions prevailing as of the date of valuation.
- Both the buyer and seller are acting prudently and knowledgeably.
- The seller is under extreme compulsion to sell.
- The buyer is typically motivated.
- Both parties are acting in what they consider to be their best interests.
- A normal marketing effort is not possible due to the brief exposure time.
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.

The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Loan to Value Ratio (LTV)

The ratio between a mortgage loan and the value of the property pledged as security, usually expressed as a percentage. (Dictionary)

Major Vertical Penetrations

Stairs, elevator shafts, flues, pipe shafts, vertical ducts, and the like, and their enclosing walls. Atria, lightwells and similar penetrations above the finished floor are included in this definition. Not included, however, are vertical penetrations built for the private use of a tenant occupying office areas on more than one floor. Structural columns, openings for vertical electric cable or telephone distribution, and openings for plumbing lines are not considered to be major vertical penetrations. (BOMA)

Market Rent

The most probable rent that a property should bring in a competitive and open market under all the conditions requisite to a fair lease transaction, the lessee and the lessor each acting prudently and knowledgeably, and assuming the rent is not affected by undue stimulus. Implicit in this definition is the execution of a lease as of a specified date under conditions whereby:
Lessee and lessor are typically motivated;
Both parties are well informed or well advised, and acting in what they consider their best interests;
Payment is made in terms of cash or in terms of financial arrangements comparable thereto; and
The rent reflects specified terms and conditions, such as permitted uses, use restrictions, expense obligations, duration, concessions, rental adjustments and revaluations, renewal and purchase options, and tenant improvements (TIs). (Appraisal Institute)

Market Value

The most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Marketing Time

An opinion of the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of an appraisal. (Advisory Opinion 7 of the Appraisal Standards Board of the Appraisal Foundation)

Master Lease

A lease in which the fee owner leases a part or the entire property to a single entity (the master lease) in return for a stipulated rent. The master lessee then leases the property to multiple tenants. (Dictionary)

Modified Gross Lease

A lease in which the landlord receives stipulated rent and is obligated to pay some, but not all, of the property's operating and fixed expenses. Since assignment of expenses varies among modified gross leases, expense responsibility must always be specified. In some markets, a modified gross lease may be called a *double net lease, net net lease, partial net lease, or semi-gross le*ase. (Dictionary)

Negative Leasehold

A lease situation in which the market rent is less than the contract rent. (Dictionary)

Operating Expense Ratio

The ratio of total operating expenses to effective gross income (TOE/EGI); the complement of the net income ratio, i.e., OER = 1 – NIR (Dictionary)

Option

A legal contract, typically purchased for a stated consideration, that permits but does not require the holder of the option (known as the *optionee*) to buy, sell, or lease real estate for a stipulated period of time in accordance with specified terms; a unilateral right to exercise a privilege. (Dictionary)

Partial Interest

Divided or undivided rights in real estate that represent less than the whole, i.e., a fractional interest such as a tenancy in common, easement, or life interest. (Dictionary)

Pass Through

A tenant's portion of operating expenses that may be composed of common area maintenance (CAM), real property taxes, property insurance, and any other expenses determined in the lease agreement to be paid by the tenant. (Dictionary)

Percentage Lease
A lease in which the rent or some portion of the rent represents a specified percentage of the volume of business, productivity, or use achieved by the tenant. (Dictionary)

Positive Leasehold
A lease situation in which the market rent is greater than the contract rent. (Dictionary)

Potential Gross Income (PGI)
The total income attributable to property at full occupancy before vacancy and operating expenses are deducted. (Dictionary)

Prospective Future Value Upon Completion
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report. … The prospective market value –as completed- reflects the property's market value as of the time that development is expected to be complete. (Dictionary)

Prospective Future Value Upon Stabilization
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report …The prospective market value – as stabilized – reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. For an income-producing property, stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties. (Dictionary)

Replacement Cost
The estimated cost to construct, at current prices as of a specific date, a substitute for a building or other improvements, using modern materials and current standards, design, and layout. (Dictionary)

Reproduction Cost
The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all of the deficiencies, superadequacies, and obsolescence of the subject building. (Dictionary)

Retrospective Value Opinion
A value opinion effective as of a specified historical date. The term *retrospective* does not define a type of value. Instead, it identifies a value opinion as being effective at some specific prior date. Value as of a historical date is frequently sought in connection with property tax appeals, damage models, lease renegotiation, deficiency judgments, estate tax, and condemnation. Inclusion of the type of value with this term is appropriate, e.g., "retrospective market value opinion." (Dictionary)

Sandwich Leasehold Estate
The interest held by the sandwich leaseholder when the property is subleased to another party; a type of leasehold estate. (Dictionary)

Sublease
An agreement in which the lessee in a prior lease conveys the right of use and occupancy of a property to another, the sublessee, for a specific period of time, which may or may not be coterminous with the underlying lease term. (Dictionary)

Subordination
A contractual arrangement in which a party with a claim to certain assets agrees to make his or her claim junior, or subordinate, to the claims of another party. (Dictionary)

Surplus Land
Land that is not currently needed to support the existing use but cannot be separated from the property and sold off for another use. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel. (Dictionary)

TPO
Thermoplastic polyolefin, a resilient synthetic roof covering.

Triple Net (Net Net Net) Lease
An alternative term for a type of net lease. In some markets, a net net net lease is defined as a lease in which the tenant assumes all expenses (fixed and variable) of operating a property except that the landlord is responsible for structural maintenance, building reserves, and management; also called *NNN lease, net net net lease, or fully net lease*. (Dictionary)

(The market definition of a triple net lease varies; in some cases tenants pay for items such as roof repairs, parking lot repairs, and other similar items.)

Usable Area
The measured area of an office area, store area, or building common area on a floor. The total of all the usable areas for a floor shall equal floor usable area of that same floor. (BOMA)

Value-in-Use

The value of a property assuming a specific use, which may or may not be the property's highest and best use on the effective date of the appraisal. Value in use may or may not be equal to market value but is different conceptually. (Dictionary)

VTAB

Value of the Total Assets of a Business. The value of a going concern (i.e. the business enterprise). (Dictionary)

Qualifications of Arthur L. Schwertz, MAI

Senior Managing Director
Valbridge Property Advisors | South Louisiana

Independent Valuations for a Variable World

State Certifications

Certified General in:
Louisiana
Mississippi
Alabama
Texas
Virginia
California
Arizona
Kentucky
Tennessee
North Carolina
Maryland
Florida

Education

Bachelor of Arts
History
Louisiana State University

Contact Details

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New Orleans, LA 70123

www.valbridge.com/south-louisiana

Membership/Affiliations

Member: Appraisal Institute – MAI Designation
Louisiana Chapter President, 2017
Member: Celebration Church Administrative Team (Corporate Secretary)

Appraisal Institute & Related Courses

Continuing education courses taken through the Appraisal Institute and other real estate organizations.

Publications, Seminars Presented, etc.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Austin, Texas, 2019.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Baton Rouge, Louisiana, 2016.

"Appraising Commercial and Complex Properties in an Historic Area", Webinar for the Appraisal Institute, 2015.

"The Unique Appraisal: Case Studies in Appraising Special Purpose Properties", AI Connect 2014 (Appraisal Institute's National Meeting), Austin, Texas, 2014.

Schwertz, Arthur L. 2014. "History Lesson", *Valuation Magazine 2nd Quarter, 2014,* 12 – 13.

Huso, Deborah R. 2013. "On the Waterfront", *Valuation Magazine 2nd Quarter, 2013,* 22 – 27. (Contributor)

Experience

Senior Managing Director
Valbridge Property Advisors | South Louisiana (2013-Present)

Vice-President
Argote, Derbes, Graham, Shuffield & Tatje, Inc. (1992-2013)

Appraisal/valuation and consulting assignments include (but not limited to): Single-family, condominium, apartments, vacant land, funeral homes, amphitheaters, live performance theaters, office buildings, hospitals, nursing homes, specialized healthcare, hotels/motels, service stations, retail, industrial plants, warehouses, fractional interest valuations, contaminated properties, special purpose properties (port facilities, nuclear reactor simulator facility, shipyards, etc.), senior residential and healthcare facilities, feasibility studies, market studies, condemnation, construction defects, litigation support, mediations, and review appraisals.

Mr. Schwertz has provided valuation services in a wide variety of complex civil litigation including real estate, land use cases, condemnation, estate matters, property taxation, construction defect, and bankruptcy/creditors matters.

Qualified as an expert witness in Terrebonne, Jefferson, Orleans, and St. Tammany Parishes, Dallas County, Texas, Indiana Board of Tax Review, United States Court of Federal Claims, United States Court for the Eastern District of Louisiana and the United States Bankruptcy Court for the Middle District of Louisiana.

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QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Designations, Associations and Professional Awards

- Louisiana Certified General Real Estate Appraiser; License No. G-0932
- Mississippi Certified General Real Estate Appraiser; License No. GA-633
- Alabama Certified General Real Estate Appraiser; License No. G00937
- Texas Certified General Real Estate Appraiser, License No. TX-1337393-G
- California Certified General Real Estate Appraiser, License No. 3005682
- Virginia Certified General Real Estate Appraiser, License No. 400101572
- Arizona Certified General Real Estate Appraiser, License No. 1003038
- North Carolina Certified General Real Estate Appraiser, License No. A8506
- Tennessee Certified General Real Estate Appraiser, License No. 5810
- Kentucky Certified General Real Estate Appraiser, License No. 5470
- Maryland Certified General Real Estate Appraiser, License No. 40034070
- Florida Certified General Real Estate Appraiser, License No. RZ4249
- Member of the Appraisal Institute, MAI Certificate No. 12678
- Instructor of the Appraisal Institute
- Secretary, Louisiana Chapter of the Appraisal Institute, 2014
- Treasurer, Louisiana Chapter of the Appraisal Institute, 2015
- Vice-President, Louisiana Chapter of the Appraisal Institute, 2016
- President, Louisiana Chapter of the Appraisal Institute, 2017

Civic Organizations

1982	Eagle Scout, Boy Scouts of America
1983	Vigil Honor Member, Order of the Arrow, Boy Scouts of America
1999 – 2001	Board of Directors, Berean Bible Church, New Orleans, Louisiana
2000 – 2001	Treasurer, Berean Bible Church, New Orleans, Louisiana
2008 – 2010	School Board Chairman, Crescent City Christian School, Metairie, Louisiana.
2008 – Present	Board of Directors, Celebration Church, Metairie, Louisiana
2010 – Present	Corporate Secretary, Celebration Church, Metairie, Louisiana

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Expert Witness Experience

- Expert Witness, United States Court of Federal Claims
- Expert Witness, United States Bankruptcy Court, Middle and Eastern Districts of Louisiana
- Expert Witness, United States Federal Court, Eastern District of Louisiana
- Expert Witness, Civil District Court for the Parish of Orleans, State of Louisiana.
- Expert Witness, State Civil District Court, Dallas County, State of Texas.
- Expert Witness, Louisiana Tax Commission
- Expert Witness, Circuit Court for the City of Norfolk, Virginia
- Expert Witness, 9th JDC, 23rd JDC and 32nd JDC, State of Louisiana
- Expert Witness, Indiana Board of Tax Review, State of Indiana

Court Testimony

2020	GIV Green Tree Mall Investor, LLC v. Clark County Assessor, Petition Nos. 10-011-17-1-4-02088-17, 10-011-18-1-4-00149-20 and 10-011-19-1-4-00150-20, Indiana Board of Tax Review, State of Indiana.
2020	Low Land Investors, LLC, Low Land Construction Co., Inc. v. New Generation Shipbuilding, LLC, Case No. 180743, 32nd Judicial District for Terrebonne Parish, State of Louisiana (Deposition/Testimony)
2020	Cella III, LLC v. Jefferson Parish Hospital District No. 2, Civil Action No. EDLA 19-11528, Bankruptcy No. 19-01145, United States District Court for the Eastern District of Louisiana (Deposition/Testimony)
2020	Elizabeth Sewell, et al v. Sewerage & Water Board of New Orleans, Docket No. 15-4501, Division D-12, Civil District Court, Parish of Orleans, State of Louisiana (Deposition)
2019	Virginia Natural Gas, Inc. v. Colonna's Ship Yard, Incorporated, Case No. CL18-2169, Circuit Court for the City of Norfolk, State of Virginia (Deposition)
2018	Jeannette C. Liebman, Wife of/and Paul E. Ramoni, Jr. v. The United States, Docket No. 14-1165, United States Court of Federal Claims (Testimony)
2016	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 16-22173-001 and 16-22173-002, Louisiana Tax Commission, State of Louisiana. (Testimony)
2016	Appeal of Fulton Development (Harrah's Hotel) v. Orleans Parish Board of Review, Docket No. 16-22171-002, Louisiana Tax Commission, State of Louisiana (Testimony)
2016	Jeannette C. Liebman and Paul E. Ramoni, Jr. v. United States of America, Case No. 14-1165 L, United States Court of Federal Claims (Deposition)
2016	State of Louisiana, Department of Transportation & Development v. Northport Properties Partnership, Et Al, Docket No. 233,894, 9th Judicial District, Parish of Rapides, State of Louisiana (Deposition)
2015	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 15-22173-018 and 15-22173-019, Louisiana Tax Commission, State of Louisiana. (Testimony)

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Court Testimony (Continued)

2015	Doretha Z. Walker et al vs. AMID/Metro Partnership, LLC and City of New Orleans, Docket No. 07-14794, Division H-14, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2015	Sandra Oubre Sotile, Et Al vs Dooley Oubre, Et Al, Docket No. 110,622, 23rd Judicial District Court, Ascension Parish, Louisiana (Deposition)
2014	North Shore Lodging, LLC vs Commonwealth Land Title Insurance Company, Case No. 2:2013cv06070, United States Court for the Eastern District of Louisiana (Deposition)
2014	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 14-22173-003 and 14-22173-004, Louisiana Tax Commission, State of Louisiana. (Testimony)
2014	State Bank of Texas vs. Granbury Hospitality Inc., et al, Cause No. DC-12-06398, 44th State Civil District Court, Dallas County, State of Texas. (Testimony)
2013	Bruce L. Feingerts v Succession of Doris Feingerts, et al, Adversary Proceeding No. 2011-9918, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2012	Consolidated Cases of Percy J. Marchand versus Entergy New Orleans, Inc., Docket No. 2009-12695 AND Omar Duncan, Et Al, vs. Entergy New Orleans, Inc., Docket No. 2010-0714 AND Leroy Anthony Vignaud versus Entergy New Orleans, Inc. Docket No. 2010-5566, Division "C" of the Civil District Court for the Parish of Orleans, State of Louisiana. (Deposition)
2011	Pleasant View Development, LLC v Charles Anthony Bonaventure, Gina Bonaventure Porciau, Charles R. St. Romain, and Patin Engineers and Surveyors, Inc., Adversary Proceeding No. 10-1024, United States Bankruptcy Court, Middle District of Louisiana (Testimony)
2011	1522 R.E. Lee Blvd., LLC v. Bank of New Orleans, Civil District Court for the Parish of Orleans, State of Louisiana (Deposition)

Partial List of Appraisal Assignments Completed

Water and Wastewater Systems

Resolve Water, Slidell, LA

Coast Water, Slidell, LA

H20 Water and Wastewater, St. Tammany Parish, LA

Mo-Dad Utilities, Tangipahoa, Livingston, West Baton Rouge, East Baton Rouge and West Feliciana Parishes, LA

Scientific System, Jacksonville, NC

Center Ridge System, Murray, KY

Blue Creek Utilities, Jacksonville, NC

Delaplain Utilities, Georgetown, KY

River Bluff Wastewater System, River Bluff, KY

Major Retail

Green Tree Mall (±443,933 square feet), Clarksville, IN

Northshore Square Mall (±621,192 square feet), Slidell, LA

The Shoppes at Fremaux (±600,000 square feet), Slidell, LA

Slidell Factory Outlet Mall, Slidell, LA

Southland Mall (±600,000 square feet), Houma, LA

The Plaza (±1,200,000 square feet), New Orleans, LA

Belle Promenade (±750,000 square feet), Marrero, LA

Jax Brewery, New Orleans, LA

River Marketplace Shopping Center, Lafayette, LA

Natchez Mall (±268,857 square feet), Natchez, MS

Bradley Square Mall (568,508 square feet), Cleveland, TN

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Healthcare

Gilchrist at Stadium Place, Baltimore, MD
Savoy Medical Center, Mamou, LA
Methodist Hospital, New Orleans, LA
Lakeland Hospital, New Orleans, LA
Shriner's Hospital, Shreveport, LA
Fairway Surgical Hospital, Covington, LA
Southpark Hospital, Lafayette, LA
St. James Parish Hospital, St. James, LA
Green Clinic and Surgery Center, Ruston, LA
Numerous Nursing Homes throughout Louisiana
Lambeth House Assisted Living, New Orleans, LA
O'Connor Hospital, San Jose, CA
St. Louise Regional Medical Center, Gilroy, CA
St. Vincent Medical Center, Los Angeles, CA
Rosewood Assisted Living Facility, Charlottesville, VA

Industrial

Colonna's Shipyard, Norfolk, VA
Signal International Shipyard, Orange, TX
Signal International Shipyard, Mobile, AL
Signal International Shipyard, Port Arthur, TX
Signal International Shipyard, Pascagoula, MS
Bender Shipyard, Mobile, AL
Plastic Infusion Plant, Hammond, LA
UBT Coal Transfer Facility, Davant, LA
Trinity Yachts, Gulfport, MS
Trinity Yachts, New Orleans, LA
Coca-Cola Facility, Thibodaux, LA
LaShip Shipyard, Houma, LA
Dow Chemical Plant, Norco, LA
Port of St. Bernard, St. Bernard, LA
Owensboro Riverport, Owensboro, KY
Toulouse Street Wharf, Port of New Orleans, LA
Mississippi River Dock, Venice, LA
Port of Iberia, New Iberia, LA.
Kaiser Site, Port of Greater Baton Rouge, LA
Proposed Port of Cameron, Cameron, LA
Union Tank Car Plant, Alexandria, LA

Entertainment/Leisure

Dixie Landing Amusement Park, Baton Rouge, LA
Blue Bayou Water Park, Baton Rouge, LA
Proposed Aqualand Water Park, Dayton, TX
Saenger Theatre, New Orleans, LA
Orpheum Theatre, New Orleans, LA
Vina Robles Amphitheatre, Paso Robles, CA
House of Blues, New Orleans, LA
The Oaks Golf Course, Pass Christian, MS
Money Hill Golf Course, Abita Springs, LA
Pelican Pointe Golf Course, Gonzales, LA
Colonial Country Club, Harahan, LA
O'Neal Theatres, Louisiana/Mississippi
Antoine's Restaurant, New Orleans, LA
AMC Theatres, Metairie/Hammond/Houma, LA
Southern Belle Casino, St. Francisville, LA
Bayou Marina, Casino and Hotel, Chalmette, LA
Lucky Deuces Casino, Greensburg, LA
Lafitte Harbor Marina, Lafitte, LA
Vinot Marina, New Orleans, LA
River Highlands Marina, Ascension Parish, LA
Kemper Marina, Gulfport, MS
C and M Marina, Lafitte, LA
Cypress Cove Marina, Venice, LA
Starlight Movie Studios, New Orleans, LA

Schools

Clifton L. Ganus Academy, New Orleans, LA
Mt. Carmel Academy, New Orleans, LA
Israel Augustine School, New Orleans, LA
Millerville Academy, Baton Rouge, LA
Louise S. McGhee School, New Orleans, LA
Stuart Hall Academy, New Orleans, LA
Believer's Life Academy, Marrero, LA

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Special Purpose Properties

Nuclear Reactor Simulator Facility, St. Francisville, LA

Statewide Economic Obsolescence Study for Hibernia Bank, State of Louisiana

Mitigation Bank, St. James Parish, LA

Mitigation Bank, Livingston Parish, LA

Mitigation Bank, East Baton Rouge Parish, LA

Elmer's Island, Jefferson Parish, LA

USPS Facilities throughout Louisiana and Mississippi

Multi-Family

Shadowlake Apartments, Harvey, LA

Citrus Creek Apartments, Harahan, LA

Palmetto Creek Apartments, Harahan, LA

The Reserve at Acadiana, Lafayette, LA

Gravier Place Apartments, New Orleans, LA

The Saulet Apartments, New Orleans, LA

Town Oaks Apartments, Shreveport, LA

University Edge Apartments, Hattiesburg, MS

Legacy Condominiums Phase I, Gulfport, MS

Legacy Condominiums Phase II, Gulfport, MS

South Beach Condominiums, Biloxi, MS

Hotels

Super 7 Motel, Lafayette, LA

Harrah's Hotel, New Orleans, LA

Candlewoods Suites Hotel, Houma, LA

Candlewoods Suites Hotel, Lafayette, LA

Hyatt House Hotel, Columbus, MS

Hampton Inn, Harahan, LA

Hampton Inn, Metairie, LA

Hampton Inn Convention Center, New Orleans, LA

Hampton Inn Uptown, New Orleans, LA

Hampton Inn, Mobile, AL

Courtyard by Marriott, Metairie, LA, Baton Rouge,

Residence Inn, Metairie, LA

Quality Inn, Opelousas, LA

LaQuinta, Slidell, LA

Historic French Market Inn, New Orleans, LA

Wyndham Hotel, Metairie, LA

Holiday Inn Superdome, New Orleans, LA

Hilton Garden Inn, Kenner, LA

Hilton Garden Inn LA

Office Buildings

Xerox Centre, Kenner, LA

Park Tower, Lafayette, LA

Former Stewart Enterprises Building, Metairie, LA

First NBC Building, New Orleans, LA

Executive Plaza, New Orleans, LA

Chase Tower, Houma, LA

Maison Blanche Building, New Orleans, LA

Yenni Office Building, Harahan, LA

Dominion Tower, New Orleans, LA

Elmwood Tower, Harahan, LA

Freeport-McMoran Building, New Orleans, LA

Entergy Building, New Orleans, LA

1250 Poydras Building, New Orleans, LA

Subdivisions

Ashton Plantation, Luling, LA

Acadiana Subdivision, Marrero, LA

Acadian Villas, Marrero, LA

The Arbors at English Turn, New Orleans, LA

Plantation Acres, Thibodaux, LA

Woodstone Subdivision, Mandeville, LA

Southlake Villages, Kenner, LA

Village Green Subdivision, Harvey, LA

Oak Island Subdivision, New Orleans, LA

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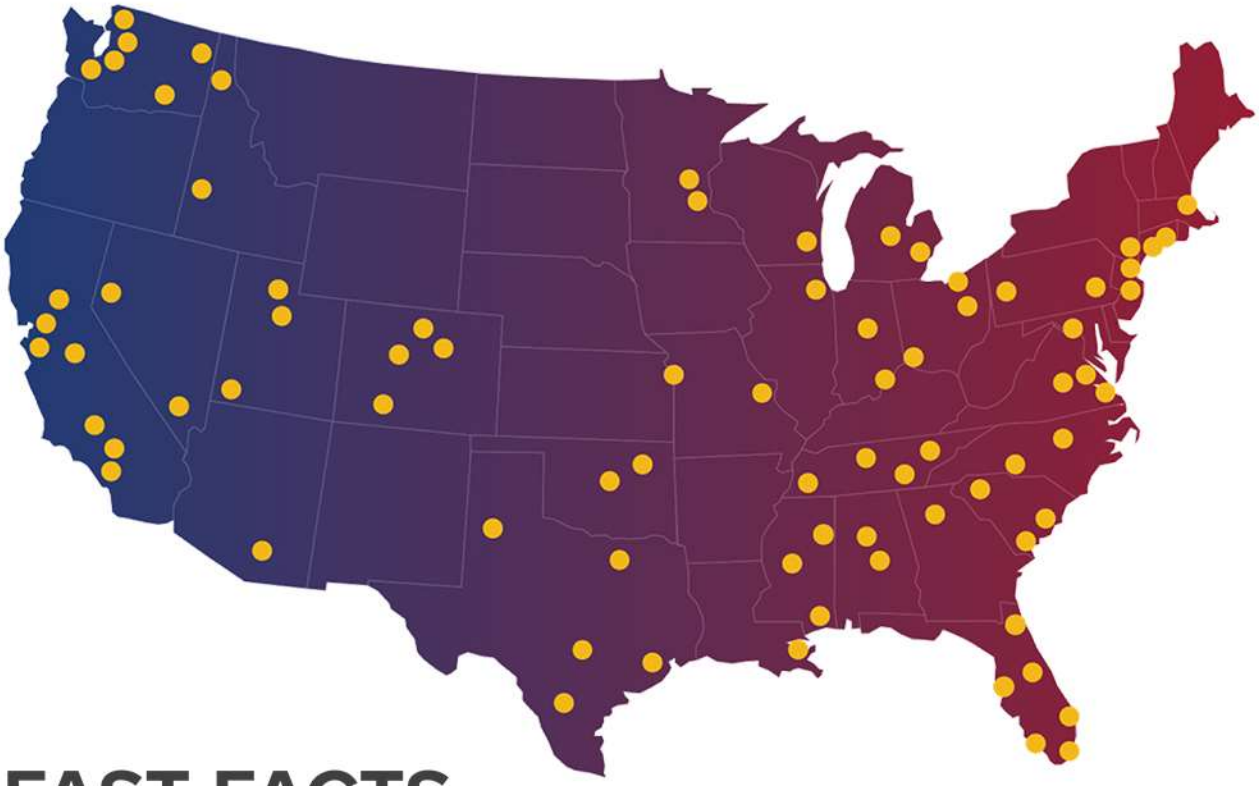

FAST FACTS

COMPANY INFORMATION

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  - Total number of MAI-designated appraisers: 200+ on staff
  - Total number of office locations: 70+ across U.S.
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- Valbridge provides independent valuation services. We are not owned by a brokerage firm or investment company.
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- Valbridge welcomes single-property assignments as well as portfolio, multi-market and other bulk-property engagements.

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Spring 2021

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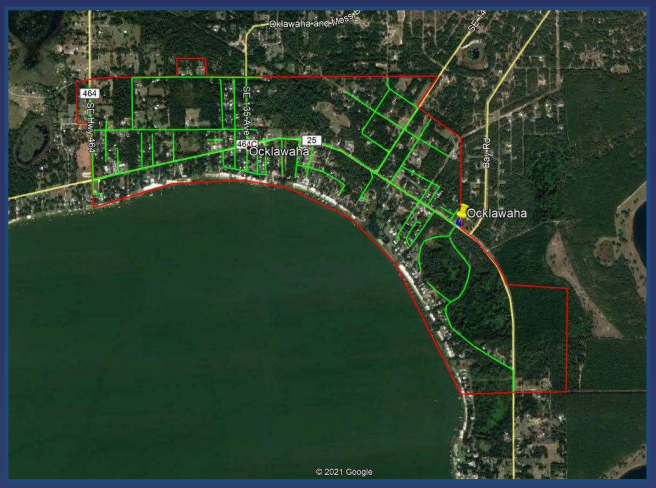
Appraisal Report

Ocklawaha
12780 E Highway 35
Ocklawaha, Marion County, Florida 32179

Report Date: 05/12/2021



FOR:

Central States Water Resources
Mr. Todd Thomas
Vice-President
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

Client Number:

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05/12/2021

Arthur L. Schwertz MAI
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Mr. Todd Thomas
Vice-President
Central States Water Resources
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

RE: Appraisal Report
Ocklawaha
12780 E Highway 35
Ocklawaha, Marion County, Florida 32179

Dear Mr. Thomas:

In accordance with your request, we have performed an appraisal of the above referenced property. This appraisal report sets forth the pertinent data gathered, the techniques employed, and the reasoning leading to our value opinions. This letter of transmittal does not constitute an appraisal report and the rationale behind the value opinion(s) reported cannot be adequately understood without the accompanying appraisal report.

The subject property, as referenced above, is located in the community of Ocklawaha and is further identified as tax parcel numbers 49102-000-00. The subject site is a 14.11-acre or 614,632-square-foot parcel. The subject is a water distribution system consisting of 14.09 acres of easements and 0.02 acres of fee simple area.

We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them.

The client in this assignment is Central States Water Resources and the intended users of this report are Central States Water Resources and/or their assigns and no others. The sole intended use is for regulatory filings. The value opinions reported herein are subject to the definitions, assumptions, limiting conditions, and certifications contained in this report.

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The findings and conclusions are further contingent upon the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results:

Extraordinary Assumptions:

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions:

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Based on the analysis contained in the following report, our value conclusions are summarized as follows:

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Easement	Fee Simple
Effective Date of Value	May 11, 2021	May 11, 2021
Value Conclusion	**$258,000**	**$1,000**

Respectfully submitted,
Valbridge Property Advisors | New Orleans

Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

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Summary of Salient Facts

Property Identification

Property Name	Ocklawaha
Property Address	12780 E Highway 35 Ocklawaha, Marion County, Florida 32179
Latitude & Longitude	29.04056, -81.941125
Tax Parcel Number	49102-000-00
Property Owner	SUNSHINE UTILITIES OF CENTRAL FLORIDA INC

Site

Zoning	(Multiple Zonings)
FEMA Flood Map No.	12083C0765D; 12083C0770D
Flood Zone	Ae, A, X
Easement Land Area	613,761 square feet
Fee Simple Land Area	871 square feet
Total Land Area	614,632 square feet

Valuation Opinions

Highest & Best Use - As Vacant	Residential and commercial
Reasonable Exposure Time	Six months or less
Reasonable Marketing Time	Six months or less

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Easement	Fee Simple
Effective Date of Value	May 11, 2021	May 11, 2021
Value Conclusion	**$258,000**	**$1,000**

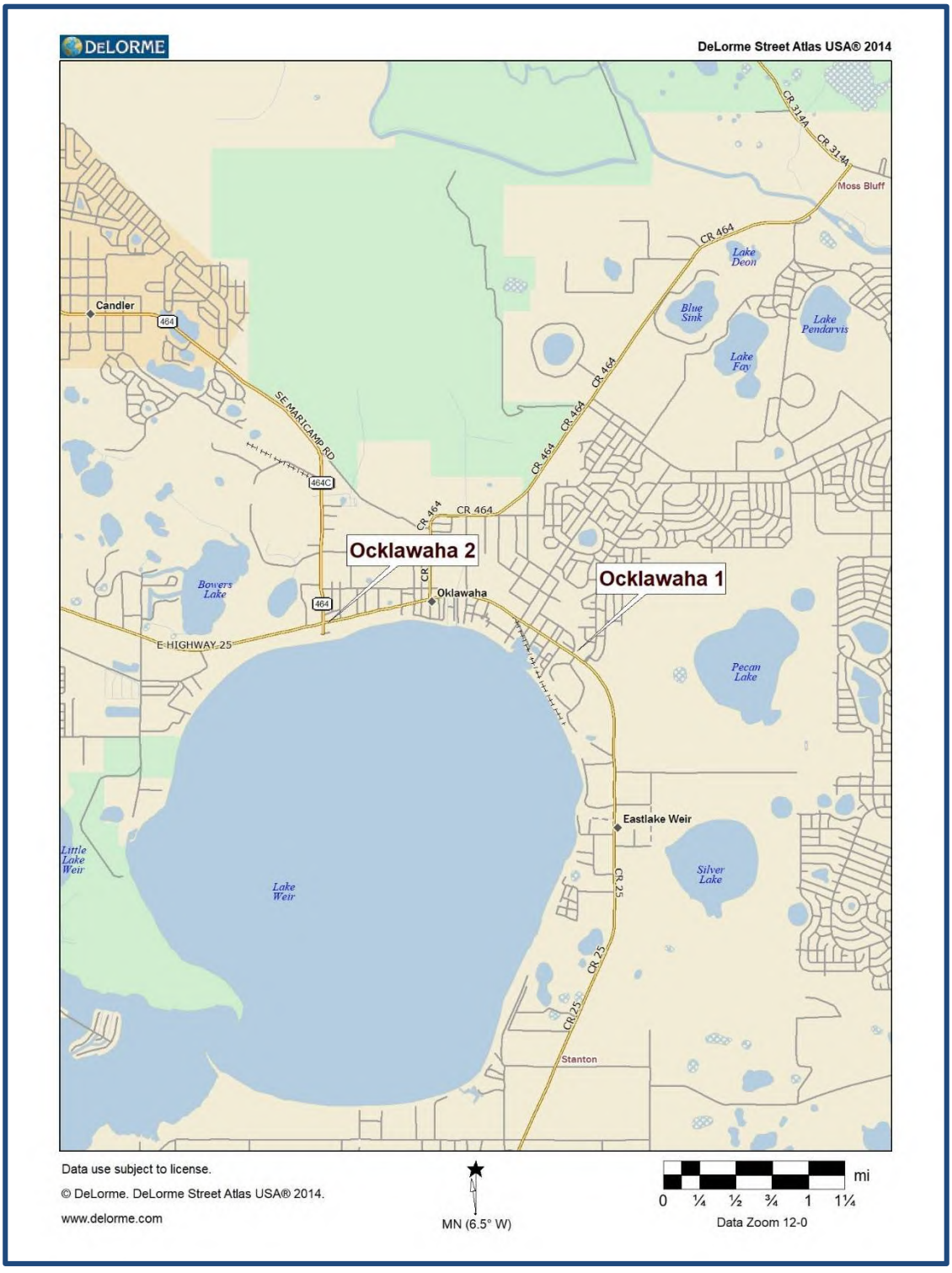
Aerial and Front Views

AERIAL VIEW

*Fee Simple Parcel

FRONT VIEW

Location Map



Introduction

Client and Intended Users of the Appraisal

The client in this assignment is Central States Water Resources and the sole intended users of this report are Central States Water Resources and/or their assigns. Under no circumstances shall any of the following parties be entitled to use or rely on the appraisal or this appraisal report:

i. The borrower(s) on any loans or financing relating to or secured by the subject property,

ii. Any guarantor(s) of such loans or financing; or

iii. Principals, shareholders, investors, members or partners in such borrower(s) or guarantors.

Intended Use of the Appraisal

The sole intended use of this report is for regulatory filings.

Real Estate Identification

The subject property is located at 12780 E Highway 35, Ocklawaha, Marion County, Florida 32179. The subject property is further identified by the tax parcel number 49102-000-00.

Legal Description

The subject consist of easements for a water distribution system for pipes, pumps, and/or well sites and tac parcel 49102-000-00.

Use of Real Estate as of the Effective Date of Value

As of the effective date of value, the subject was a utility property.

Use of Real Estate as Reflected in this Appraisal

The opinion of value for the subject as is reflects use as a utility property.

Ownership of the Property

According to Public Records, title to the subject property is vested in SUNSHINE UTILITIES OF CENTRAL FLORIDA INC.

History of the Property

Ownership of the subject property has not changed within the past three years.

Analysis of Listings/Offers/Contracts

The subject is not currently listed for sale or under contract for sale..

Type and Definition of Value

The appraisal problem is to develop an opinion of the market value of the subject property. "Market Value," as used in this appraisal, is defined as "the most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus."

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- *Buyer and seller are typically motivated.*
- *Both parties are well informed or well advised, each acting in what they consider their own best interests;*
- *A reasonable time is allowed for exposure in the open market;*
- *Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and*
- *The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale."1*

The value conclusions apply to the value of the subject property under the market conditions presumed on the effective date of value. Please refer to the Glossary in the Addenda section for additional definitions of terms used in this report.

Valuation Scenarios, Property Rights Appraised, and Effective Dates of Value

Per the scope of our assignment we developed opinions of value for the subject property under the following scenarios of value:

Valuation Scenario	Effective Date of Value
As Is Market Value of the Easement Interest	May 11, 2021
As Is Market Value of the Fee Simple Interest	May 11, 2021

Date of Report

The date of this report is 05/12/2021.

List of Items Requested but Not Provided

- All requested information was provided.

[1] Source: Code of Federal Regulations, Title 12, Banks and Banking, Part 722.2-Definitions

Assumptions and Conditions of the Appraisal

This appraisal assignment and the opinions reported herein are subject to the General Assumptions and Limiting Conditions contained in the report and the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results.

Extraordinary Assumptions

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Scope of Work

The elements addressed in the Scope of Work are (1) the extent to which the subject property is identified, (2) the extent to which the subject property is inspected, (3) the type and extent of data researched, (4) the type and extent of analysis applied, (5) the type of appraisal report prepared, and (6) the inclusion or exclusion of items of non-realty in the development of the value opinion. These items are discussed as below.

Extent to Which the Property Was Identified

The three components of the property identification are summarized as follows:

- Legal Characteristics - The subject was legally identified via public Records and information provided by the client.
- Economic Characteristics - Economic characteristics of the subject property were identified via information provided by the client, public records, market surveys, discussions with market participants, and the files of Valbridge Property Advisors, as well as a comparison to properties with similar locational and physical characteristics.
- Physical Characteristics - The subject was physically identified via a general inspection of the property by the appraiser via aerial maps.

Type and Extent of Data Researched

We researched and analyzed: (1) market area data, (2) property-specific market data, (3) zoning and land-use data, and (4) current data on comparable listings and transactions. We also interviewed people familiar with the subject market/property type.

Type and Extent of Analysis Applied (Valuation Methodology)

We observed surrounding land use trends, the condition of any improvements, demand for the subject property, and relevant legal limitations in concluding a highest and best use. We then valued the subject based on that highest and best use conclusion.

Appraisers develop an opinion of property value with specific appraisal procedures that reflect three distinct methods of data analysis: the Cost Approach, Sales Comparison Approach, and Income Capitalization Approach. One or more of these approaches are used in all estimations of value.

- Sales Comparison Approach - In the Sales Comparison Approach, value is indicated by recent sales and/or listings of comparable properties in the market, with the appraiser analyzing the impact of material differences in both economic and physical elements between the subject and the comparables.
- Direct Capitalization: Land Residual Method - The Land Residual Methodology involves estimating the residual net income to the land by deducting from total potential income the portion attributable to the improvements, assuming development of the site at its highest and best use. The residual income is capitalized at an appropriate rate, resulting in an indication of land value.
- Direct Capitalization: Ground Rent Capitalization – A market derived capitalization rate is applied to the net income resulting from a ground lease. This can represent the leased fee or

fee simple interest, depending on whether the income potential is reflective of a lease in place or market rental rates.

- Yield Capitalization: Subdivision Development Method – Also known as Discounted Cash Flow Analysis (DCF), the methodology is most appropriate for land having multiple lot development in the near term as the highest and best use. The current site value is represented by discounting the anticipated cash flow to a present value, taking into consideration all necessary costs of development, maintenance, administration, and sales throughout the absorption period.

All of these approaches to value were considered. We assessed the availability of data and applicability of each approach to value within the context of the characteristics of the subject property and the needs and requirements of the client. Based on this assessment, we relied upon the Sales Comparison Approach. Further discussion of the extent of our analysis and the methodology of each approach is provided later in the respective valuation sections.

Appraisal Conformity and Report Type

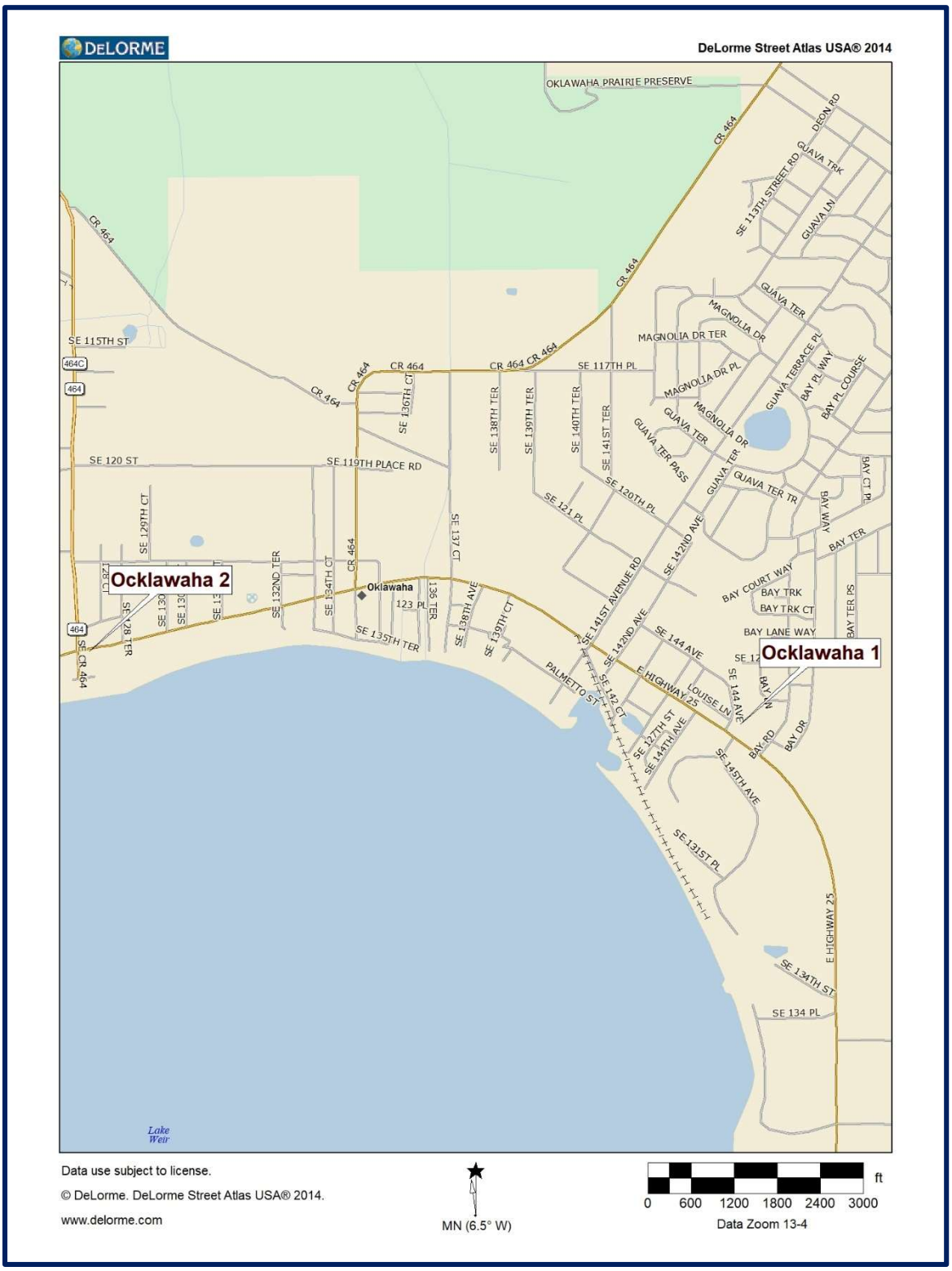
We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them. This is an Appraisal Report as defined by the Uniform Standards of Professional Appraisal Practice under Standards Rule 2-2a.

Personal Property/FF&E

All items of non-realty are excluded from this analysis. The opinion of market value developed herein is reflective of real estate only.

City and Neighborhood Analysis

NEIGHBORHOOD MAP



Overview

The subject is located in Ocklawaha in Marion County, Florida.

The area of Ocklawaha is characterized by being a unincorporated area in the Ocala MSA. Ocklawaha is located on the northeastern shore of Lake Weir.

Neighborhood Location and Boundaries

The subject neighborhood is located in Ocklawaha. The area is suburban in nature.

The neighborhood is bounded by Chernobyl Memorial Forest to the north, Ocklawaha River to the east, Lake Weir to the south, and Lake Bowers to the west.

Transportation Access

Within the immediate area of the subject property, transportation access helps define the character of its development. Major travel and commuter routes within the area of the subject property include E Highway 25. Access to the area is considered average.

Neighborhood Land Use

The subject neighborhood is located in an area with primarily residential land uses. An approximate breakdown of the development in the area is as follows:

LAND USES

Developed	75%
Residential	*90%*
Retail	*10%*
Office	*0%*
Industrial	*0%*
Vacant	25%
Total	**100%**

Land Use Trends

The neighborhood is not experiencing a change in land use.

Demographics

The following table depicts the area demographics in Ocklawaha within a one-, three-, and five-mile radius from the subject.

Neighborhood Demographics

Radius (Miles)	1 Mile	3 Mile	5 Mile
Population Summary			
2010 Population	734	6,124	23,505
2020 Population Estimate	813	6,803	25,959
2025 Population Projection	863	7,243	27,539
Annual % Change (2020 - 2025)	1.2%	1.3%	1.2%
Housing Unit Summary			
2010 Housing Units	455	3,228	12,368
% Owner Occupied	49.2%	58.9%	68.0%
% Renter Occupied	21.5%	17.9%	14.2%
2020 Housing Units	504	3,577	13,600
% Owner Occupied	46.0%	55.7%	65.1%
% Renter Occupied	24.6%	21.1%	16.7%
2025 Housing Units	535	3,808	14,400
% Owner Occupied	45.6%	55.3%	64.8%
% Renter Occupied	25.0%	21.5%	16.9%
Annual % Change (2020 - 2025)	1.4%	1.3%	1.2%
Income Summary			
2020 Median Household Income Estimate	$35,225	$42,208	$50,494
2025 Median Household Income Projection	$37,024	$44,866	$52,890
Annual % Change	1.0%	1.2%	0.9%
2020 Per Capita Income Estimate	$18,425	$22,569	$26,365
2025 Per Capita Income Projection	$19,821	$24,445	$28,717
Annual % Change	1.5%	1.6%	1.7%

Source: ESRI (ArcGIS) *(Lat: 29.04056, Lon: -81.941125)*

Within a three-mile radius, the reported population is 6,803 with a projected growth rate of approximately 1.3% annually. There are 3,577 housing units within that three-mile radius. The growth rate is expected to be 1.3% annually. Most of the housing is owner-occupied. Our research indicates that property values in the area are stable to increasing.

Within a three-mile radius, the median household income is **$**42,208. Looking ahead, annual household income growth is projected at **1.2**% per year. The average income figures suggest that the inhabitants are within the lower to middle income brackets.

Nuisances & External Obsolescence

Neighborhood properties have adequate levels of maintenance. No adverse or unfavorable factors were observed.

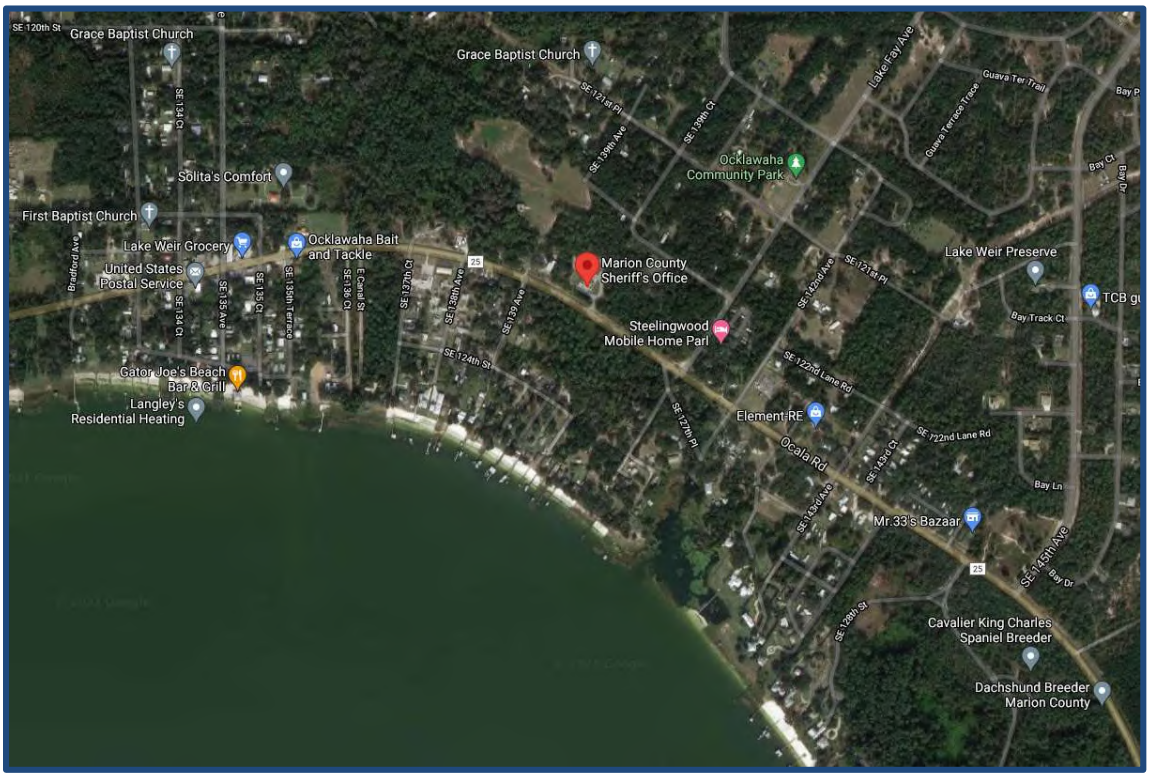
Neighborhood Life Cycle

Most neighborhoods are classified as being in four stages: **growth**, **stability**, **decline**, and **renewal**. Overall, the subject neighborhood is in the Stable stage of its life cycle.

Immediate Area Uses

The below aerial photo exhibits the uses located in the subject's immediate vicinity.

IMMEDIATE AREA USES



Source: Google Maps

Uses along Ocala Road in the vicinity of the subject are primarily residential in nature. Recognized uses in the immediate area of the subject include retail, residential, mobile home park, waterfront residential. As shown above, the density of uses in the area is moderate.

Analysis and Conclusions

The neighborhood is characterized by being a suburban community on the shore of Lake Weir in the Ocala MSA.

Site Description

The subject site is located in the community of Ocklawaha. The characteristics of the site are summarized as follows:

Site Characteristics

Gross Land Area:	14.11 Acres or 614,632 SF
Fee Simple Land Area:	0.02 Acres or 871 SF
Easement Land Area:	14.09 Acres or 613,761 SF14.09

Flood Zone Data

Flood Map Panel/Number:	12083C0765D; 12083C0770D
Flood Map Date:	08-28-2008
Flood Zone:	Ae, A, X
	Flood Zone A is described as an "Area of 100 year flood; base flood elevations and flood hazard factors determined." Flood Zone X is described as an "Area of Minimum Flood hazard."

Adjacent Land Uses

North:	Residential
South:	Lake Weir
East:	Vacant Land
West:	Residential

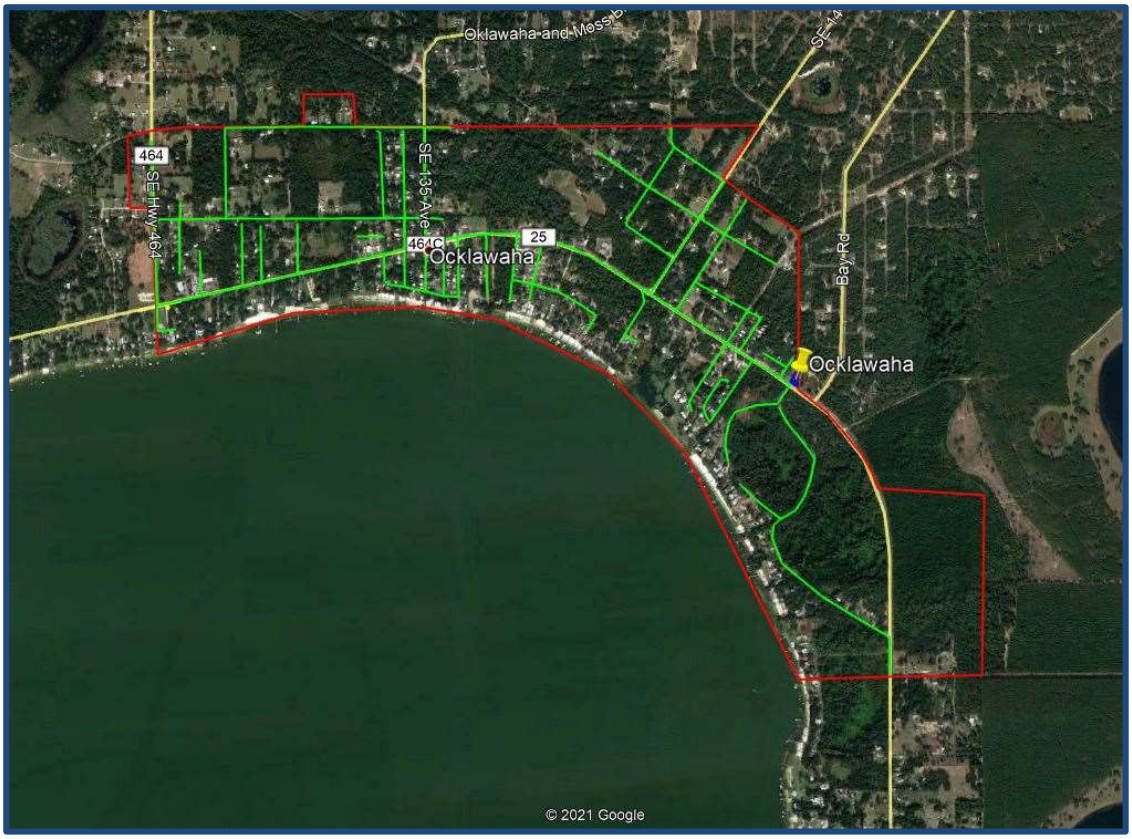
Zoning Designation

Zoning Jurisdiction:	Marion County
Zoning Classification:	Multiple Zonings,
Permitted Uses:	Single and Multi Family and Commercial
Zoning Comments:	The subject is mostly zoned various residential zonings with portions of commercial zonings along Highway 25.

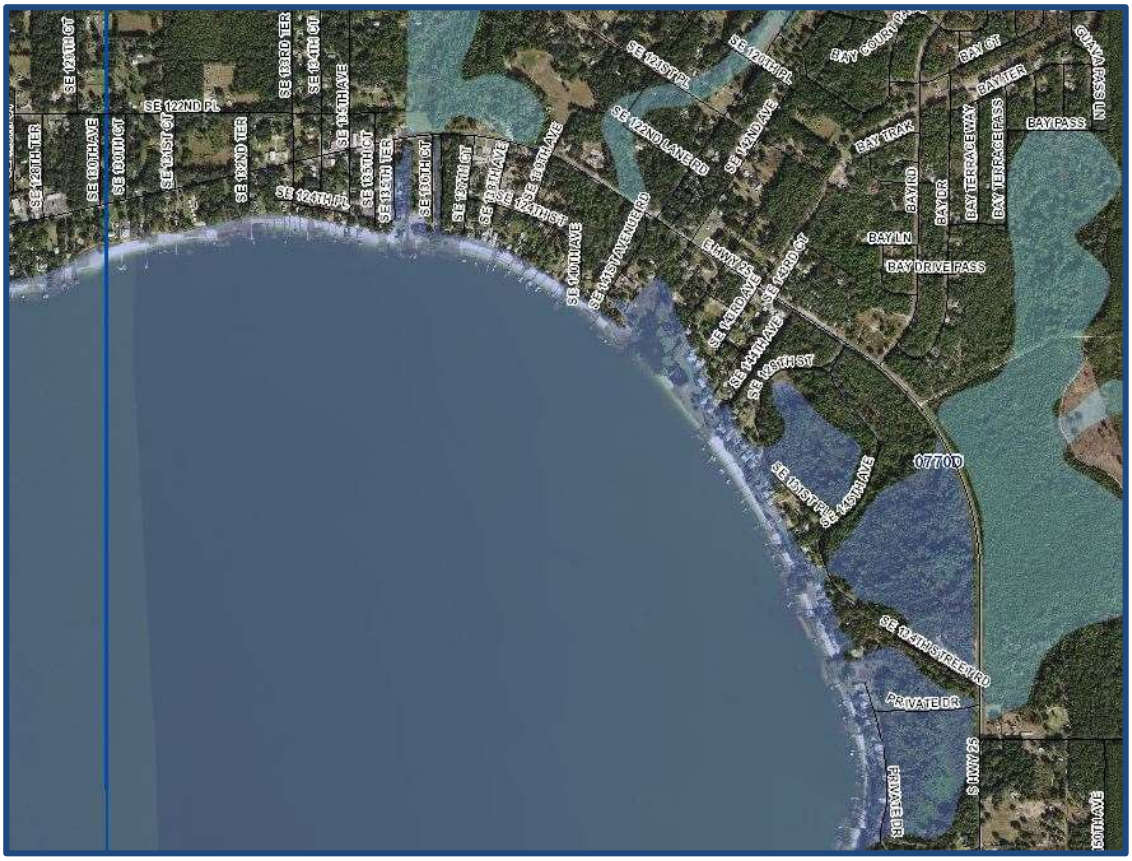
Analysis/Comments on Site

The subject is a water distribution system consisting of 14.09 acres of easements and 0.02 acres of fee simple area.

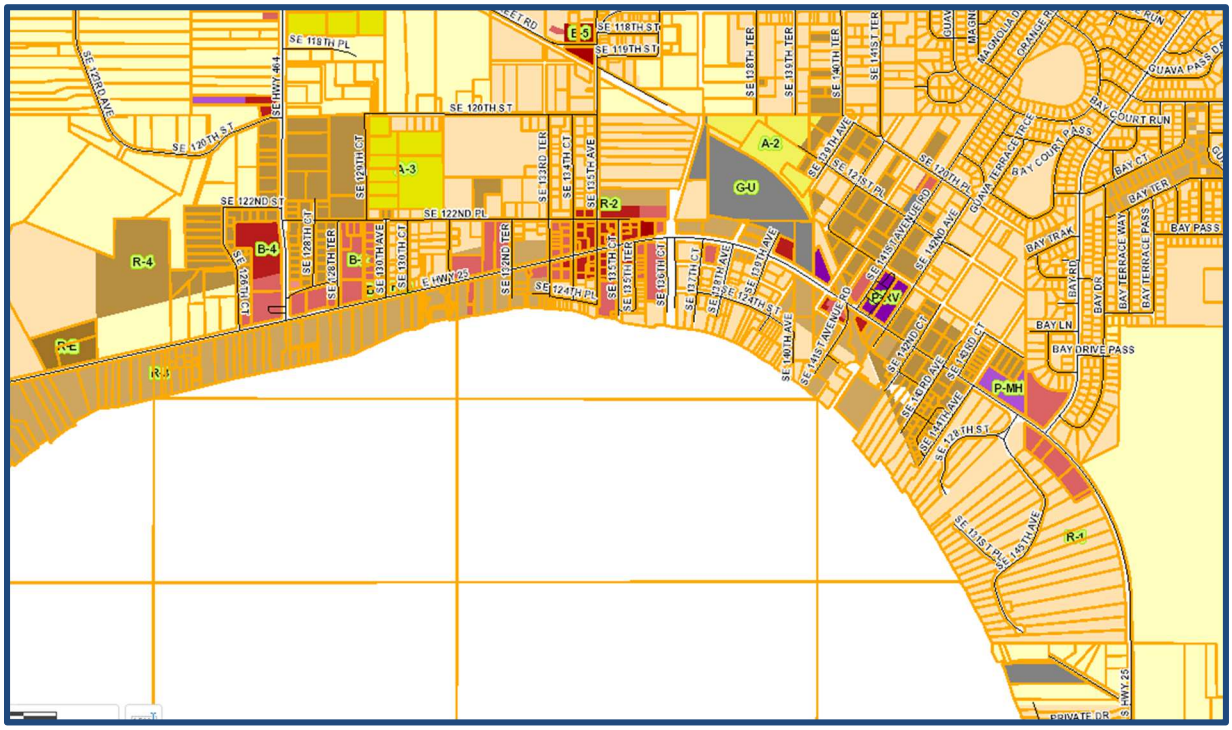
SERVICE AREA MAP



FLOOD MAP


SE 122ND PL
SE 122ND LANE RD
SE 124TH ST
SE 140TH AVE
SE 140TH AVE
SE 142ND ST
SE 144TH AVE
SE 106TH ST
SE 145TH AVE
SE 137TH STREET RD
PRIVATE DR
PRIVATE DR
BAY LN
BAY DRIVE PASS
BAY TRAK
BAY TERRACE WAY
BAY TERRACE PASS
BAY PASS
BAY CT
BAY TER
CLARA PASS LN
07700
S HWY 25
100TH AVE

ZONING MAP


E-3
A-2
G-U
R-2
R-4
B-4
B-
R-E
P-MH
R-1
SE 118TH ST
SE 119TH ST
SE 120TH ST
SE 122ND ST
SE 122ND PL
SE 124TH PL
SE 122ND AVE
SE HWY 464
E HWY 25
SE 118TH PL
SE 120TH CT
SE 126TH CT
SE 128TH TER
SE 128TH CT
SE 130TH AVE
SE 130TH CT
SE 132ND TER
SE 133RD TER
SE 134TH CT
SE 135TH AVE
SE 135TH TER
SE 136TH CT
SE 137TH CT
SE 138TH TER
SE 139TH AVE
SE 139TH TER
SE 140TH TER
SE 141ST TER
SE 141ST AVENUE RD
SE 140TH AVE
SE 142ND AVE
SE 142ND CT
SE 143RD AVE
SE 145TH CT
SE 141ST AVE
SE 128TH ST
SE 135TH PL
SE 145TH AVE
SE 128TH PL
SE 129TH AVE
SE 127TH ST
SE 127TH CT
BAY COURT RUN
BAY COURT PASS
BAY CT
BAY TER
BAY TERRACE WAY
BAY TERRACE PASS
BAY PASS
BAY TRAK
BAY RD
BAY DR
BAY LN
BAY DRIVE PASS
GUAVA PASS
GUAVA TERRACE PL
MAGNOLIA DR
ORANGE
PRIVATE DR
S HWY 25

Highest and Best Use

The Highest and Best Use of a property is the use that is legally permissible, physically possible, and financially feasible which results in the highest value. An opinion of the highest and best use results from consideration of the criteria noted above under the market conditions or likely conditions as of the effective date of value. Determination of highest and best use results from the judgment and analytical skills of the appraiser. It represents an opinion, not a fact. In appraisal practice, the concept of highest and best use represents the premise upon which value is based.

Analysis of Highest and Best Use As Though Vacant

The primary determinants of the highest and best use of the property As Though Vacant are the issues of (1) Legal permissibility, (2) Physical possibility, (3) Financial feasibility, and (4) Maximum productivity.

Legally Permissible

The subject site is zoned Multiple Zonings, which controls the general nature of permissible uses but is appropriate for the location and physical elements of the subject property, providing for a consistency of use with the general neighborhood. The location of the subject property is appropriate for the uses allowed, as noted previously, and a change in zoning is unlikely. There are no known easements, encroachments, covenants or other use restrictions that would unduly limit or impede development.

Physically Possible

The physical attributes allow for a number of potential uses. Elements such as size, shape, availability of utilities, known hazards (flood, environmental, etc.), and other potential influences are described in the Site Description and have been considered. There are no items of a physical nature which would adversely impact development with the legal permitted uses.

Financially Feasible

The probable use of the site for residential development conforms to the pattern of land use in the market area. A review of published yield, rental and occupancy rates suggest that there is a balanced supply and demand is sufficient to support construction costs and ensure timely absorption of additional inventory in this market. Therefore, near-term speculative development of the subject site is financially feasible.

Maximally Productive

Among the financially feasible uses, the use that results in the highest value (the maximally productive use) is the highest and best use. Considering these factors, the maximally productive use as though vacant is for residential and commercial use.

Conclusion of Highest and Best Use As Though Vacant

The conclusion of the highest and best use As Though Vacant is for residential and commercial use.

Most Probable Buyer

As of the date of value, the most probable buyer of the subject property is an owner user.

Land Valuation

Methodology

Site Value is most often estimated using the sales comparison approach. This approach develops an indication of market value by analyzing closed sales, listings, or pending sales of properties similar to the subject, focusing on the difference between the subject and the comparables using all appropriate elements of comparison. This approach is based on the principles of supply and demand, balance, externalities, and substitution, or the premise that a buyer would pay no more for a specific property than the cost of obtaining a property with the same quality, utility, and perceived benefits of ownership.

The process of developing the sales comparison approach consists of the following analyses: (1) researching and verifying transactional data, (2) selecting relevant units of comparison, (3) analyzing and adjusting the comparable sales for differences in various elements of comparison, and (4) reconciling the adjusted sales into a value indication for the subject site.

Unit of Comparison

The unit of comparison depends on land use economics and how buyers and sellers use the property. The unit of comparison in this analysis is per usable square foot.

Elements of Comparison

Elements of comparison are the characteristics or attributes of properties and transactions that cause the prices of real estate to vary. The primary elements of comparison considered in sales comparison analysis are as follows: (1) property rights conveyed, (2) financing terms, (3) conditions of sale, (4) expenditures made immediately after purchase, (5) market conditions, (6) location and (7) physical characteristics.

Comparable Sales Data

To obtain and verify comparable sales of vacant land properties, we conducted a search of public records, field surveys, interviews with knowledgeable real estate professionals in the area, and a review of our internal database.

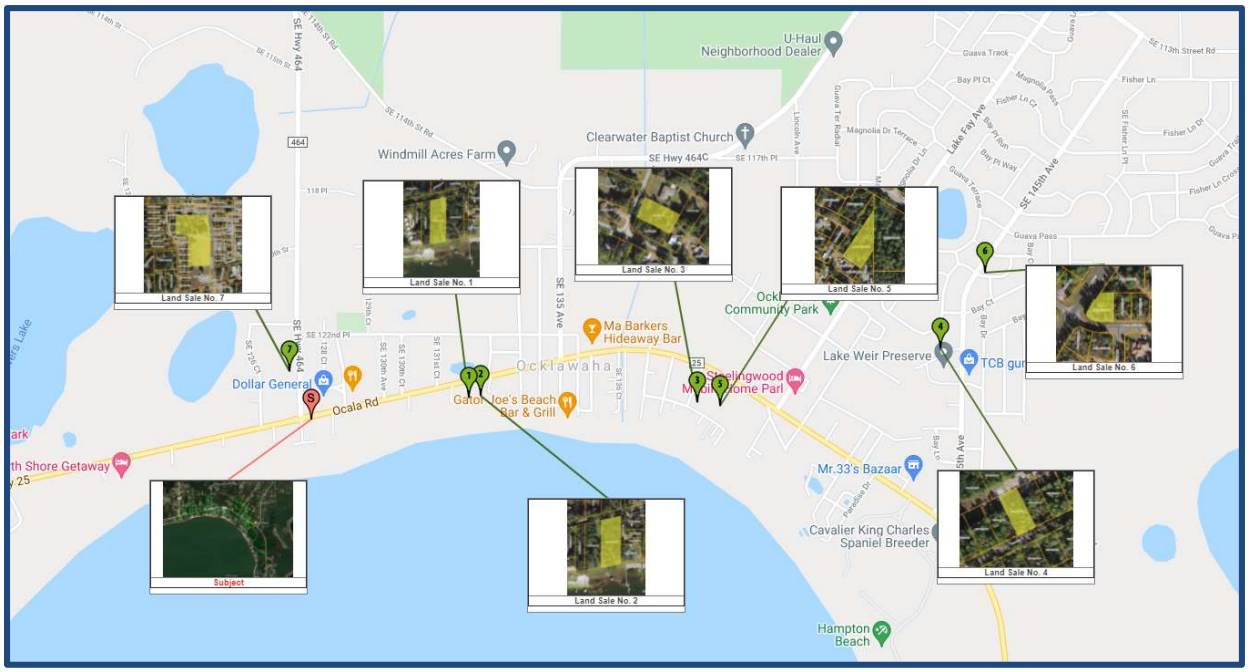
We included seven sales in our analysis, as these sales were judged to be the most comparable to develop an indication of market value for the subject property.

The following is a table summarizing each sale comparable and a map illustrating the location of each in relation to the subject.

Land Sales Summary

	Sale # 1	Sale # 2	Sale # 3	Sale # 4	Sale # 5	Sale # 6	Sale # 7
Sale ID	1534306	1534336	1534300	1534340	1534341	1534357	1534714
Property Name	Residential Waterfront Lot	Residential Waterfront Lot	Residential Lot	Residential Lot	Residential Lot	Residential Lot	Commercial Land
Sale Status	Closed	Closed	Closed	Closed	Closed	Closed	Closed
Location	13250 E Highway 25	13254 E Highway 25	12391 SE 139th Avenue	13 Bay Trak	0 SE 139th Court	Bay Road and Bay Court Pass	SE Hwy 464
	Ocklawaha, Florida	Ocklawaha, Florida	Ocklawaha, Florida	Ocklawaha, Florida	Ocklawaha, Florida	Ocklawaha, Florida	Ocklawaha, Florida
Tax ID	48958-000-00	48997-000-00	4855-011-003	9038-1293-04	4855-014-001	9038-1272-01	4904-000-000
Sales Data							
Date of Sale	6/25/2020	9/8/2020	1/23/2020	10/15/2020	4/22/2020	4/16/2021	5/30/2019
Sales Price	$320,000	$360,000	$8,100	$5,500	$10,000	$7,500	$309,400
Price/Usable Square Foot	$4.62	$4.54	$0.45	$0.39	$0.24	$0.61	$0.78
Grantor	OVL LLC	OVL, LLC	Adrian W Bell III and George S Debenedicty	Quiga Inc	Kelly Brooks aka Kelly Summersill	Diane Clementz, Sandra Weston and Edward Kwiecinski	Ramulu Ellgeti Trustee, Elgetti Land Trust
Grantee	Susan J Cartwright and Bradley J Cartwright Trust	Chandler and Gida Aden	Bradley Stegar	James R Key	Charles Jamison and Melisss Jamison	Carson Building & Development LLC	NSC Lake Weir LLC
Recording Number	2020065616	2020094768	2020008541	2020111343		2021050653	2019056333
Book/Page Number	7215/1871	7266/0924	7121/954	7295/0419	7179/879	7438/157	6977/1111
Document Number							
Property Rights Conveyed	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple
Financing	Cash to Seller	Cash to Seller		Cash Deed	Cash Deed	Cash to Seller	
Conditions of Sale	Arm's Length	Arm's Length		Arm's Length	Arm's Length	Arm's Length	Arm's Length
Physical Characteristics							
Usable Land Area (Sq. Ft.)	69,260	79,279	17,860	13,939	40,946	12,197	395,525
Gross Land Area (Sq. Ft.)	69,260	79,279	17,860	13,939	40,946	12,197	395,525
Zoning	R-3	R-3	R-1	R-3	R-3	R-1	B-4
Flood Zone							X
Topography							Level
Shape							Irregular
Utilities							
Corner Exposure						Corner	Interior
Access/Visibility	/	/	/	/	/	/	Average/Average
Primary Frontage	165 feet on Highway 25	191 feet on Highway 25	100 feet on	80 feet on Bay Trak	380 feet on 139th Court	108 feet on Bay Road	885 feet on SE Highway 464
Secondary Frontage	165 feet on Lake Weir	191 feet on Lake Weir	feet on	feet on	feet on	122 feet on Bay Court Pass	feet on

COMPARABLE SALES MAP



Land Sales Comparison Analysis

When necessary, adjustments were made for differences in various elements of comparison, including property rights conveyed, financing terms, conditions of sale, expenditures made immediately after purchase, market conditions, location, and other physical characteristics. If the element in comparison is considered superior to that of the subject, we applied a negative adjustment. Conversely, a positive adjustment was applied if inferior. A summary of the elements of comparison follows.

Elements of Comparison	
Real Property Rights Conveyed	Adjustments for differences in property rights appraised.
Financing Terms	Comparable properties are adjusted for differences between a transaction's financing terms and those assumed in the valuation of the subject property - e.g. seller financing, loan assumption, non-market terms.
Conditions of Sale	Comparable properties are adjusted for differences in the motivations of either the buyer or a seller in the transaction. In the instant case, no adjustments are required.
Expenditures After Purchase	Comparable properties can be adjusted for any additional investment required to make the property salable – e. g. costs to cure deferred maintenance, costs to demolish and remove any portion of the improvements, costs to remediate environmental contamination and/or costs to occupy or stabilize the property.
Market Conditions	Comparable properties can be adjusted for changes in market conditions because of inflation, deflation, fluctuations in supply and demand, or other factors.
Location	Location adjustments may be required when the locational characteristics of a comparable are different from those of the subject.
Size	The size adjustment addresses variance in the physical size of the comparables and that of the subject, as a larger parcel typically commands a lower price per unit than a smaller parcel. As this is an estimate of the Across the Fence Value, it is assumed that the subject would be part of a lot similar in size to the comparables. As such, no positive adjustments for size are warranted.
Shape /Depth	This element address variance in utility due to shape and/or depth. No adjustments are warranted.
Corner Exposure	Tracts featuring corner influence typically command higher prices in the market place, as opposed to interior locations. As the subject includes both corner and interior lots, no adjustments are warranted.

Summary of Adjustments

Presented on the following page is a summary of the adjustments made to the sale comparables. As noted earlier, these quantitative adjustments were based on our market research, best judgment, and experience in the appraisal of similar properties.

LAND SALES ADJUSTMENT GRID

	Subject	Sale # 1	Sale # 2	Sale # 3	Sale # 4	Sale # 5	Sale # 6	Sale # 7
Sale ID		1534306	1534336	1534300	1534340	1534341	1534357	1534714
Date of Value & Sale	May-21	June-20	September-20	January-20	October-20	April-20	April-21	May-19
Unadjusted Sales Price		$320,000	$360,000	$8,100	$5,500	$10,000	$7,500	$309,400
Usable Square Feet	871	69,260	79,279	17,860	13,939	40,946	12,197	395,525
Unadjusted Sales Price per Usable Sq. Ft.		**$4.62**	**$4.54**	**$0.45**	**$0.39**	**$0.24**	**$0.61**	**$0.78**
Transactional Adjustments								
Property Rights Conveyed	*Easement*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*
Adjusted Sales Price		$4.62	$4.54	$0.45	$0.39	$0.24	$0.61	$0.78
Financing Terms	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*		*Cash Deed*	*Cash Deed*	*Cash to Seller*	
Adjusted Sales Price		$4.62	$4.54	$0.45	$0.39	$0.24	$0.61	$0.78
Conditions of Sale	*Typical*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*
Adjusted Sales Price		$4.62	$4.54	$0.45	$0.39	$0.24	$0.61	$0.78
Expenditures after Sale								
Adjusted Sales Price		**$4.62**	**$4.54**	**$0.45**	**$0.39**	**$0.24**	**$0.61**	**$0.78**
Market Conditions Adjustments								
Elapsed Time from Date of Value		*0.88 years*	*0.67 years*	*1.30 years*	*0.57 years*	*1.05 years*	*0.07 years*	*1.95 years*
Market Trend Through	May-21	1.8%	1.3%	2.6%	1.1%	2.1%	0.1%	3.9%
Analyzed Sales Price		**$4.70**	**$4.60**	**$0.47**	**$0.40**	**$0.25**	**$0.62**	**$0.81**
Physical Adjustments								
Location	*12780 E Highway 35 Ocklawaha, Florida*	*13250 E Highway 25 Ocklawaha, Florida*	*13254 E Highway 25 Ocklawaha, Florida*	*12391 SE 139th Avenue Ocklawaha, Florida*	*13 Bay Trak Ocklawaha, Florida*	*0 SE 139th Court Ocklawaha, Florida*	*Bay Road and Bay Court Pass Ocklawaha, Florida*	*SE Hwy 464 Ocklawaha, Florida*
Adjustment		-	-	-	-	-	-	-
Size	*871 sf*	*69,260 sf*	*79,279 sf*	*17,860 sf*	*13,939 sf*	*40,946 sf*	*12,197 sf*	*395,525 sf*
Adjustment		-	-	-	-	-	-	10.0%
Zoning	*Multiple Zonings*	*R-3*	*R-3*	*R-1*	*R-3*	*R-3*	*R-1*	*B-4*
Adjustment		-	-	-	-	-	-	-
Feature		*Waterfront*	*Waterfront*	*N/A*	*N/A*	*N/A*	*N/A*	*Commercial*
Adjustment		-	-	-	-	-	-	-
Net Physical Adjustment		-	-	-	-	-	-	10.0%
Adjusted Sales Price per Usable Square Foot		**$4.70**	**$4.60**	**$0.47**	**$0.40**	**$0.25**	**$0.62**	**$0.89**

Conclusion

From the market data available, we used seven land sales in competitive market areas which were adjusted based on pertinent elements of comparison. The following table summarizes the unadjusted and adjusted unit prices:

Land Sale Statistics

Metric	Unadjusted	Analyzed	Adjusted
Min. Sales Price per Usable Square Foot	$0.24	$0.25	$0.25
Max. Sales Price per Usable Square Foot	$4.62	$4.70	$4.70
Median Sales Price per Usable Square Foot	$0.61	$0.62	$0.62
Mean Sales Price per Usable Square Foot	$1.66	$1.69	$1.70

The subject is approximately 3% Commercial Land use, 15% Waterfront Residential Land use, and 82% non-waterfront residential land use. The comparables were weighted accordingly.

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $1.05 per usable square foot. Thus, the estimated "Across the Fence Value" of the Fee Simple Interest in the subject easements is calculated to be $644,000..

Valuation of the Fee Simple Area

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $1.05 per usable square foot. Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject Fee Simple area is calculated as follows:

Calculation of Fee Simple Value

Site Area		Unit Value		Market Value
871 Square Feet	X	$1.05	=	$1,000

Valuation of the Easement

The use to which the subject easements will be put to is for underground water and sewer pipes. As such, little or no surface improvements will be possible, but access across the surface will be allowed. It is my opinion, therefore, that such an easement will encumber approximately 40% of the ownership rights in the subject.

Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject easements is calculated as follows:

Calculation of Easement Value

Site Area		Unit Value		Market Value of Fee		Easement Use	Indicated Value of Easement
613,761 square feet	X	$1.05 PSF	=	$644,000	X	40%	$258,000

Exposure Time and Marketing Period

Based on statistical information about days on market, escrow length, and marketing times gathered through national investor surveys, sales verification, and interviews of market participants, marketing and exposure time estimates of six months or less and six months or less, respectively, are considered reasonable and appropriate for the subject property.

General Assumptions and Limiting Conditions

This appraisal is subject to the following general assumptions and limiting conditions:

1. The legal description – if furnished to us – is assumed to be correct.
2. No responsibility is assumed for legal matters, questions of survey or title, soil or subsoil conditions, engineering, availability or capacity of utilities, or other similar technical matters. The appraisal does not constitute a survey of the property appraised. All existing liens and encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management unless otherwise noted.
3. Unless otherwise noted, the appraisal will value the property as though free of contamination. Valbridge Property Advisors | New Orleans will conduct no hazardous materials or contamination inspection of any kind. It is recommended that the client hire an expert if the presence of hazardous materials or contamination poses any concern.
4. The stamps and/or consideration placed on deeds used to indicate sales are in correct relationship to the actual dollar amount of the transaction.
5. Unless otherwise noted, it is assumed there are no encroachments, zoning violations or restrictions existing in the subject property.
6. The appraiser is not required to give testimony or attendance in court by reason of this appraisal, unless previous arrangements have been made.
7. Unless expressly specified in the engagement letter, the fee for this appraisal does not include the attendance or giving of testimony by Appraiser at any court, regulatory or other proceedings, or any conferences or other work in preparation for such proceeding. If any partner or employee of Valbridge Property Advisors | New Orleans is asked or required to appear and/or testify at any deposition, trial, or other proceeding about the preparation, conclusions or any other aspect of this assignment, client shall compensate Appraiser for the time spent by the partner or employee in appearing and/or testifying and in preparing to testify according to the Appraiser's then current hourly rate plus reimbursement of expenses.
8. The values for land and/or improvements, as contained in this report, are constituent parts of the total value reported and neither is (or are) to be used in making a summation appraisal of a combination of values created by another appraiser. Either is invalidated if so used.
9. The dates of value to which the opinions expressed in this report apply are set forth in this report. We assume no responsibility for economic or physical factors occurring at some point at a later date, which may affect the opinions stated herein. The forecasts, projections, or operating estimates contained herein are based on current market conditions and anticipated short-term supply and demand factors and are subject to change with future conditions. Appraiser is not responsible for determining whether the date of value requested by Client is appropriate for Client's intended use.
10. The sketches, maps, plats and exhibits in this report are included to assist the reader in visualizing the property. The appraiser has made no survey of the property and assumed no responsibility in connection with such matters.
11. The information, estimates and opinions, which were obtained from sources outside of this office, are considered reliable. However, no liability for them can be assumed by the appraiser.

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12. Possession of this report, or a copy thereof, does not carry with it the right of publication. Neither all, nor any part of the content of the report, or copy thereof (including conclusions as to property value, the identity of the appraisers, professional designations, reference to any professional appraisal organization or the firm with which the appraisers are connected), shall be disseminated to the public through advertising, public relations, news, sales, or other media without prior written consent and approval.
13. No claim is intended to be expressed for matters of expertise that would require specialized investigation or knowledge beyond that ordinarily employed by real estate appraisers. We claim no expertise in areas such as, but not limited to, legal, survey, structural, environmental, pest control, mechanical, etc.
14. This appraisal was prepared for the sole and exclusive use of the client for the function outlined herein. Any party who is not the client or intended user identified in the appraisal or engagement letter is not entitled to rely upon the contents of the appraisal without express written consent of Valbridge Property Advisors | New Orleans and Client. The Client shall not include partners, affiliates, or relatives of the party addressed herein. The appraiser assumes no obligation, liability or accountability to any third party.
15. Distribution of this report is at the sole discretion of the client, but third-parties not listed as an intended user on the face of the appraisal or the engagement letter may not rely upon the contents of the appraisal. In no event shall client give a third-party a partial copy of the appraisal report. We will make no distribution of the report without the specific direction of the client.
16. This appraisal shall be used only for the function outlined herein, unless expressly authorized by Valbridge Property Advisors | New Orleans.
17. This appraisal shall be considered in its entirety. No part thereof shall be used separately or out of context.
18. Unless otherwise noted in the body of this report, this appraisal assumes that the subject property does not fall within the areas where mandatory flood insurance is effective. Unless otherwise noted, we have not completed nor have we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property. Because the appraiser is not a surveyor, he or she makes no guarantees, express or implied, regarding this determination.
19. The flood maps are not site specific. We are not qualified to confirm the location of the subject property in relation to flood hazard areas based on the FEMA Flood Insurance Rate Maps or other surveying techniques. It is recommended that the client obtain a confirmation of the subject property's flood zone classification from a licensed surveyor.
20. If the appraisal is for mortgage loan purposes 1) we assume satisfactory completion of improvements if construction is not complete, 2) no consideration has been given for rent loss during rent-up unless noted in the body of this report, and 3) occupancy at levels consistent with our "Income and Expense Projection" are anticipated.
21. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures which would render it more or less valuable. No responsibility is assumed for such conditions or for engineering which may be required to discover them.

22. Our inspection included an observation of the land and improvements thereon only. It was not possible to observe conditions beneath the soil or hidden structural components within the improvements. We inspected the buildings involved, and reported damage (if any) by termites, dry rot, wet rot, or other infestations as a matter of information, and no guarantee of the amount or degree of damage (if any) is implied. Condition of heating, cooling, ventilation, electrical and plumbing equipment is considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. Should the client have concerns in these areas, it is the client's responsibility to order the appropriate inspections. The appraiser does not have the skill or expertise to make such inspections and assumes no responsibility for these items.

23. This appraisal does not guarantee compliance with building code and life safety code requirements of the local jurisdiction. It is assumed that all required licenses, consents, certificates of occupancy or other legislative or administrative authority from any local, state or national governmental or private entity or organization have been or can be obtained or renewed for any use on which the value conclusion contained in this report is based unless specifically stated to the contrary.

24. When possible, we have relied upon building measurements provided by the client, owner, or associated agents of these parties. In the absence of a detailed rent roll, reliable public records, or "as-built" plans provided to us, we have relied upon our own measurements of the subject improvements. We follow typical appraisal industry methods; however, we recognize that some factors may limit our ability to obtain accurate measurements including, but not limited to, property access on the day of inspection, basements, fenced/gated areas, grade elevations, greenery/shrubbery, uneven surfaces, multiple story structures, obtuse or acute wall angles, immobile obstructions, etc. Professional building area measurements of the quality, level of detail, or accuracy of professional measurement services are beyond the scope of this appraisal assignment.

25. We have attempted to reconcile sources of data discovered or provided during the appraisal process, including assessment department data. Ultimately, the measurements that are deemed by us to be the most accurate and/or reliable are used within this report. While the measurements and any accompanying sketches are considered to be reasonably accurate and reliable, we cannot guarantee their accuracy. Should the client desire more precise measurement, they are urged to retain the measurement services of a qualified professional (space planner, architect or building engineer) as an alternative source. If this alternative measurement source reflects or reveals substantial differences with the measurements used within the report, upon request of the client, the appraiser will submit a revised report for an additional fee.

26. In the absence of being provided with a detailed land survey, we have used assessment department data to ascertain the physical dimensions and acreage of the property. Should a survey prove this information to be inaccurate, upon request of the client, the appraiser will submit a revised report for an additional fee.

27. If only preliminary plans and specifications were available for use in the preparation of this appraisal, and a review of the final plans and specifications reveals substantial differences upon request of the client the appraiser will submit a revised report for an additional fee.

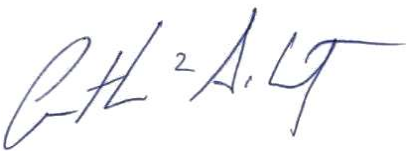
28. Unless otherwise stated in this report, the value conclusion is predicated on the assumption that the property is free of contamination, environmental impairment or hazardous materials. Unless otherwise stated, the existence of hazardous material was not observed by the appraiser and the appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation or other potentially hazardous materials may affect the value of the property. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required for discovery. The client is urged to retain an expert in this field, if desired.
29. The Americans with Disabilities Act ("ADA") became effective January 26, 1992. We have not made a specific compliance survey of the property to determine if it is in conformity with the various requirements of the ADA. It is possible that a compliance survey of the property, together with an analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this could have a negative effect on the value of the property. Since we have no direct evidence relating to this issue, we did not consider possible noncompliance with the requirements of ADA in developing an opinion of value.
30. This appraisal applies to the land and building improvements only. The value of trade fixtures, furnishings, and other equipment, or subsurface rights (minerals, gas, and oil) were not considered in this appraisal unless specifically stated to the contrary.
31. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated, unless specifically stated to the contrary.
32. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute prediction of future operating results. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance.
33. Any estimate of insurable value, if included within the scope of work and presented herein, is based upon figures developed consistent with industry practices. However, actual local and regional construction costs may vary significantly from our estimate and individual insurance policies and underwriters have varied specifications, exclusions, and non-insurable items. As such, we strongly recommend that the Client obtain estimates from professionals experienced in establishing insurance coverage. This analysis should not be relied upon to determine insurance coverage and we make no warranties regarding the accuracy of this estimate.
34. The data gathered in the course of this assignment (except data furnished by the Client) shall remain the property of the Appraiser. The appraiser will not violate the confidential nature of the appraiser-client relationship by improperly disclosing any confidential information furnished to the appraiser. Notwithstanding the foregoing, the Appraiser is authorized by the client to disclose all or any portion of the appraisal and related appraisal data to appropriate representatives of the Appraisal Institute if such disclosure is required to enable the appraiser to comply with the Bylaws and Regulations of such Institute now or hereafter in effect.

35. You and Valbridge Property Advisors | New Orleans both agree that any dispute over matters in excess of $5,000 will be submitted for resolution by arbitration. This includes fee disputes and any claim of malpractice. The arbitrator shall be mutually selected. If Valbridge Property Advisors | New Orleans and the client cannot agree on the arbitrator, the presiding head of the Local County Mediation & Arbitration panel shall select the arbitrator. Such arbitration shall be binding and final. In agreeing to arbitration, we both acknowledge that, by agreeing to binding arbitration, each of us is giving up the right to have the dispute decided in a court of law before a judge or jury. In the event that the client, or any other party, makes a claim against Valbridge Property Advisors | New Orleans or any of its employees in connections with or in any way relating to this assignment, the maximum damages recoverable by such claimant shall be the amount actually received by Valbridge Property Advisors | New Orleans for this assignment, and under no circumstances shall any claim for consequential damages be made.
36. Valbridge Property Advisors | New Orleans shall have no obligation, liability, or accountability to any third party. Any party who is not the "client" or intended user identified on the face of the appraisal or in the engagement letter is not entitled to rely upon the contents of the appraisal without the express written consent of Valbridge Property Advisors | New Orleans. "Client" shall not include partners, affiliates, or relatives of the party named in the engagement letter. Client shall hold Valbridge Property Advisors | New Orleans and its employees harmless in the event of any lawsuit brought by any third party, lender, partner, or part-owner in any form of ownership or any other party as a result of this assignment. The client also agrees that in case of lawsuit arising from or in any way involving these appraisal services, client will hold Valbridge Property Advisors | New Orleans harmless from and against any liability, loss, cost, or expense incurred or suffered by Valbridge Property Advisors | New Orleans in such action, regardless of its outcome.
37. The Valbridge Property Advisors office responsible for the preparation of this report is independently owned and operated by VPA of South Louisiana, Inc.. Neither Valbridge Property Advisors, Inc., nor any of its affiliates has been engaged to provide this report. Valbridge Property Advisors, Inc. does not provide valuation services, and has taken no part in the preparation of this report.
38. If any claim is filed against any of Valbridge Property Advisors, Inc., a Florida Corporation, its affiliates, officers or employees, or the firm providing this report, in connection with, or in any way arising out of, or relating to, this report, or the engagement of the firm providing this report, then (1) under no circumstances shall such claimant be entitled to consequential, special or other damages, except only for direct compensatory damages, and (2) the maximum amount of such compensatory damages recoverable by such claimant shall be the amount actually received by the firm engaged to provide this report.
39. This report and any associated work files may be subject to evaluation by Valbridge Property Advisors, Inc., or its affiliates, for quality control purposes.
40. Acceptance and/or use of this appraisal report constitutes acceptance of the foregoing general assumptions and limiting conditions.
41. The global outbreak of a "novel coronavirus" (known as COVID-19) was officially declared a pandemic by the World Health Organization (WHO). It is currently unknown what direct, or indirect, effect, if any, this event may have on the national economy, the local economy or the market in which the subject property is located. The reader is cautioned, and reminded that the conclusions presented in this appraisal report apply only as of the effective date(s) indicated. The appraiser makes no representation as to the effect on the subject property of this event, or any event, subsequent to the effective date of the appraisal.

Certification – Arthur L. Schwertz

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. The undersigned performed services regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
9. Arthur L. Schwertz did not personally inspected the subject property.
10. R. Carter Higdon provided significant real property appraisal assistance to the person signing this certification, unless otherwise noted.
11. The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
12. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
13. As of the date of this report, the undersigned has completed the continuing education program for Designated Members of the Appraisal Institute.



Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

Addenda

Glossary

Qualifications

- Arthur L. Schwertz, MAI - Senior Managing Director

Information on Valbridge Property Advisors

Office Locations

Glossary

Definitions are taken from The Dictionary of Real Estate Appraisal, 6th Edition (Dictionary), the Uniform Standards of Professional Appraisal Practice (USPAP), and Building Owners and Managers Association International (BOMA).

Absolute Net Lease

A lease in which the tenant pays all expenses including structural maintenance, building reserves, and management; often a long-term lease to a credit tenant. (Dictionary)

Amortization

The process of retiring a debt or recovering a capital investment, typically through scheduled, systematic repayment of the principal; a program of periodic contributions to a sinking fund or debt retirement fund. (Dictionary)

As Is Market Value

The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date. (Dictionary)

Base Rent

The minimum rent stipulated in a lease. (Dictionary)

Base Year

The year on which escalation clauses in a lease are based. (Dictionary)

Building Common Area

In office buildings, the areas of the building that provide services to building tenants but which are not included in the office area or store area of any specific tenant. These areas may include, but shall not be limited to, main and auxiliary lobbies, atrium spaces at the level of the finished floor, concierge areas or security desks, conference rooms, lounges or vending areas, food service facilities, health or fitness centers, daycare facilities, locker or shower facilities, mail rooms, fire control rooms, fully enclosed courtyards outside the exterior walls, and building core and service areas such as fully enclosed mechanical or equipment rooms. Specifically excluded from building common area are floor common areas, parking space, portions of loading docks outside the building line, and major vertical penetrations. (BOMA)

Building Rentable Area

The sum of all floor rentable areas. Floor rentable area is the result of subtracting from the gross measured area of a floor the major vertical penetrations on that same floor. It is generally fixed for the life of the building and is rarely affected by changes in corridor size or configuration. (BOMA)

Bulk Value

The value of multiple units, subdivided plots, or properties in a portfolio as though sold together in a single transaction.

Certificate of Occupancy (COO)

A formal written acknowledgment by an appropriate unit of local government that a new construction or renovation project is at the stage where it meets applicable health and safety codes and is ready for commercial or residential occupancy. (Dictionary)

Common Area Maintenance (CAM)

The expense of operating and maintaining common areas; may or may not include management charges and usually does not include capital expenditures on tenant improvements or other improvements to the property. (Dictionary)

The amount of money charged to tenants for their shares of maintaining a [shopping] center's common area. The charge that a tenant pays for shared services and facilities such as electricity, security, and maintenance of parking lots. Items charged to common area maintenance may include cleaning services, parking lot sweeping and maintenance, snow removal, security and upkeep. (ICSC – International Council of Shopping Centers, 4th Ed.)

Condominium

A multiunit structure, or a unit within such a structure, with a condominium form of ownership. (Dictionary)

Conservation Easement

An interest in real estate restricting future land use to preservation, conservation, wildlife habitat, or some combination of those uses. A conservation easement may permit farming, timber harvesting, or other uses of a rural nature as well as some types of conservation-oriented development to continue, subject to the easement. (Dictionary)

Contributory Value

A type of value that reflects the amount a property or component of a property contributes to the value of another asset or to the property as a whole.

The change in the value of a property as a whole, whether positive or negative, resulting from the addition or deletion of a property component. Also called deprival value in some countries. (Dictionary)

Debt Coverage Ratio (DCR)

The ratio of net operating income to annual debt service (DCR = NOI/Im), which measures the relative ability of a property to meet its debt service out of net operating income; also called *debt service coverage ratio (DSCR)*. A larger *DCR* typically indicates a greater ability for a property to withstand a reduction of income, providing an improved safety margin for a lender. (Dictionary)

Deed Restriction

A provision written into a deed that limits the use of land. Deed restrictions usually remain in effect when title passes to subsequent owners. (Dictionary)

Depreciation

In appraisal, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date.

In accounting, an allocation of the original cost of an asset, amortizing the cost over the asset's life; calculated using a variety of standard techniques. (Dictionary)

Disposition Value

The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a specified time, which is shorter than the typical exposure time for such a property in that market.
- The property is subjected to market conditions prevailing as of the date of valuation;
- Both the buyer and seller are acting prudently and knowledgeably;
- The seller is under compulsion to sell;
- The buyer is typically motivated;
- Both parties are acting in what they consider to be their best interests;
- An adequate marketing effort will be made during the exposure time;
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Double Net (Net Net) Lease

An alternative term for a type of net lease. In some markets, a net net lease is defined as a lease in which the tenant is responsible to pay both property taxes and premiums for insuring the building(s). (Valbridge)

(The market definition of a double net lease varies depending on the market)

Easement

The right to use another's land for a stated purpose. (Dictionary)

EIFS

Exterior Insulation Finishing System. This is a type of exterior wall cladding system. Sometimes referred to as dry-vit.

Effective Date

The date on which the appraisal or review opinion applies. (SVP)

In a lease document, the date upon which the lease goes into effect. (Dictionary)

Effective Gross Income (EGI)

The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income. (Dictionary)

Effective Rent

Total base rent, or minimum rent stipulated in a lease, over the specified lease term minus rent concessions; the rent that is effectively paid by a tenant net of financial concessions provided by a landlord. (TIs). (Dictionary)

EPDM

Ethylene Propylene Diene Monomer Rubber. A type of synthetic rubber typically used for roof coverings. (Dictionary)

Escalation Clause

A clause in an agreement that provides for the adjustment of a price or rent based on some event or index. e.g., a provision to increase rent if operating expenses increase; also called *escalator clause, expense recovery clause or stop clause*. (Dictionary)

Estoppel Certificate

A signed statement by a party (such as a tenant or a mortgagee) certifying, for another's benefit, that certain facts are correct, such as that a lease exists, that there are no defaults, and that rent is paid to a certain date. (Black's) In real estate, a buyer of rental property typically requests estoppel certificates from existing tenants. Sometimes referred to as an *estoppel letter*. (Dictionary)

Excess Land

Land that is not needed to serve or support the existing use. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and is valued separately. (Dictionary)

Excess Rent
The amount by which contract rent exceeds market rent at the time of the appraisal; created by a lease favorable to the landlord (lessor) and may reflect unusual management, unknowledgeable or unusually motivated parties, a lease execution in an earlier, stronger rental market, or an agreement of the parties. (Dictionary)

Expense Stop
A clause in a lease that limits the landlord's expense obligation, which results in the lessee paying operating expenses above a stated level or amount. (Dictionary)

Exposure Time
The time a property remains on the market.
The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal;

Comment: Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market. (Dictionary)

Extraordinary Assumption
An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

Comment: Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis. (USPAP)

Fee Simple Estate
Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat. (Dictionary)

Floor Common Area
In an office building, the areas on a floor such as washrooms, janitorial closets, electrical rooms, telephone rooms, mechanical rooms, elevator lobbies, and public corridors which are available primarily for the use of tenants on that floor. (BOMA)

Full Service (Gross) Lease
A lease in which the landlord receives stipulated rent and is obligated to pay all of the property's operating and fixed expenses; also called a *full service lease*. (Dictionary)

Furniture, Fixtures, and Equipment (FF&E)
Business trade fixtures and personal property, exclusive of inventory. (Dictionary)

Going-Concern Value
An outdated label for the market value of all the tangible and intangible assets of an established and operating business with an indefinite life, as if sold in aggregate; more accurately termed the *market value of the going concern* or *market value of the total assets of the business.* (Dictionary)

Gross Building Area (GBA)
Total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls of the above-grade area. This includes mezzanines and basements if and when typically included in the market area of the type of property involved.

Gross leasable area plus all common areas.
For residential space, the total area of all floor levels measured from the exterior of the walls and including the superstructure and substructure basement; typically does not include garage space. (Dictionary)

Gross Measured Area
The total area of a building enclosed by the dominant portion (the portion of the inside finished surface of the permanent outer building wall which is 50 percent or more of the vertical floor-to-ceiling dimension, at the given point being measured as one moves horizontally along the wall), excluding parking areas and loading docks (or portions of same) outside the building line. It is generally not used for leasing purposes and is calculated on a floor by floor basis. (BOMA)

Gross Up Method
A method of calculating variable operating expenses in income-producing properties when less than 100% occupancy is assumed. Expenses reimbursed based on the amount of occupied space, rather than on the total building area, are described as "grossed up." (Dictionary)

Gross Retail Sellout
The sum of the separate and distinct market value opinions for each of the units in a condominium, subdivision development, or portfolio of properties, as of the date of valuation. The aggregate of retail values does not represent the value of all the units as though sold together in a single transaction; it is simply the total of the individual market value conclusions. Also called the *aggregate of the retail values, aggregate retail selling price or sum of the retail values.* (Dictionary)

Ground Lease
A lease that grants the right to use and occupy land. Improvements made by the ground lessee typically revert to the ground lessor at the end of the lease term. (Dictionary)

Ground Rent
The rent paid for the right to use and occupy land according to the terms of a ground lease; the portion of the total rent allocated to the underlying land. (Dictionary)

HVAC
Heating, ventilation, air conditioning (HVAC) system. A unit that regulates the temperature and distribution of heat and fresh air throughout a building. (Dictionary)

Highest and Best Use
The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

The use of an asset that maximizes its potential and that is possible, legally permissible, and financially feasible. The highest and best use may be for continuation of an asset's existing use of for some alternative use. This is determined by the use that a market participant would have in mind for the asset when formulating the price that it would be willing to bid. (IVS)

[The] highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future. (Uniform Appraisal Standards for Federal Land Acquisitions) (Dictionary)

Hypothetical Condition
A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comment: Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP)

Insurable Value
A type of value for insurance purposes. (Typically this includes replacement cost less basement excavation, foundation, underground piping and architect's fees). (Dictionary)

Investment Value
The value of a property to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market. (Dictionary)

Just Compensation
In condemnation, the amount of loss for which a property owner is compensated when his or her property is taken. Just compensation should put the owner in as good a position pecuniarily as he or she would have been if the property had not been taken. (Dictionary)

Leased Fee Interest
The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversionary right when the lease expires. (Dictionary)

Leasehold Interest
The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease. (Dictionary)

See also Positive Leasehold and Negative Leasehold.

Lessee (Tenant)
One who has the right to occupancy and use of the property of another for a period of time according to a lease agreement. (Dictionary)

Lessor (Landlord)
One who conveys the rights of occupancy and use to others under a lease agreement. (Dictionary)

Liquidation Value
The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a short time period.
- The property is subjected to market conditions prevailing as of the date of valuation.
- Both the buyer and seller are acting prudently and knowledgeably.
- The seller is under extreme compulsion to sell.
- The buyer is typically motivated.
- Both parties are acting in what they consider to be their best interests.
- A normal marketing effort is not possible due to the brief exposure time.
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.

The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Loan to Value Ratio (LTV)
The ratio between a mortgage loan and the value of the property pledged as security, usually expressed as a percentage. (Dictionary)

Major Vertical Penetrations
Stairs, elevator shafts, flues, pipe shafts, vertical ducts, and the like, and their enclosing walls. Atria, lightwells and similar penetrations above the finished floor are included in this definition. Not included, however, are vertical penetrations built for the private use of a tenant occupying office areas on more than one floor. Structural columns, openings for vertical electric cable or telephone distribution, and openings for plumbing lines are not considered to be major vertical penetrations. (BOMA)

Market Rent
The most probable rent that a property should bring in a competitive and open market under all the conditions requisite to a fair lease transaction, the lessee and the lessor each acting prudently and knowledgeably, and assuming the rent is not affected by undue stimulus. Implicit in this definition is the execution of a lease as of a specified date under conditions whereby:
Lessee and lessor are typically motivated;
Both parties are well informed or well advised, and acting in what they consider their best interests;
Payment is made in terms of cash or in terms of financial arrangements comparable thereto; and
The rent reflects specified terms and conditions, such as permitted uses, use restrictions, expense obligations, duration, concessions, rental adjustments and revaluations, renewal and purchase options, and tenant improvements (TIs). (Appraisal Institute)

Market Value
The most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Marketing Time
An opinion of the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of an appraisal. (Advisory Opinion 7 of the Appraisal Standards Board of the Appraisal Foundation)

Master Lease
A lease in which the fee owner leases a part or the entire property to a single entity (the master lease) in return for a stipulated rent. The master lessee then leases the property to multiple tenants. (Dictionary)

Modified Gross Lease
A lease in which the landlord receives stipulated rent and is obligated to pay some, but not all, of the property's operating and fixed expenses. Since assignment of expenses varies among modified gross leases, expense responsibility must always be specified. In some markets, a modified gross lease may be called a *double net lease, net net lease, partial net lease, or semi-gross le*ase. (Dictionary)

Negative Leasehold
A lease situation in which the market rent is less than the contract rent. (Dictionary)

Operating Expense Ratio
The ratio of total operating expenses to effective gross income (TOE/EGI); the complement of the net income ratio, i.e., OER = 1 – NIR (Dictionary)

Option
A legal contract, typically purchased for a stated consideration, that permits but does not require the holder of the option (known as the *optionee*) to buy, sell, or lease real estate for a stipulated period of time in accordance with specified terms; a unilateral right to exercise a privilege. (Dictionary)

Partial Interest
Divided or undivided rights in real estate that represent less than the whole, i.e., a fractional interest such as a tenancy in common, easement, or life interest. (Dictionary)

Pass Through
A tenant's portion of operating expenses that may be composed of common area maintenance (CAM), real property taxes, property insurance, and any other expenses determined in the lease agreement to be paid by the tenant. (Dictionary)

Percentage Lease
A lease in which the rent or some portion of the rent represents a specified percentage of the volume of business, productivity, or use achieved by the tenant. (Dictionary)

Positive Leasehold
A lease situation in which the market rent is greater than the contract rent. (Dictionary)

Potential Gross Income (PGI)
The total income attributable to property at full occupancy before vacancy and operating expenses are deducted. (Dictionary)

Prospective Future Value Upon Completion
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report. … The prospective market value –as completed- reflects the property's market value as of the time that development is expected to be complete. (Dictionary)

Prospective Future Value Upon Stabilization
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report …The prospective market value – as stabilized – reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. For an income-producing property, stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties. (Dictionary)

Replacement Cost
The estimated cost to construct, at current prices as of a specific date, a substitute for a building or other improvements, using modern materials and current standards, design, and layout. (Dictionary)

Reproduction Cost
The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all of the deficiencies, superadequacies, and obsolescence of the subject building. (Dictionary)

Retrospective Value Opinion
A value opinion effective as of a specified historical date. The term *retrospective* does not define a type of value. Instead, it identifies a value opinion as being effective at some specific prior date. Value as of a historical date is frequently sought in connection with property tax appeals, damage models, lease renegotiation, deficiency judgments, estate tax, and condemnation. Inclusion of the type of value with this term is appropriate, e.g., "retrospective market value opinion." (Dictionary)

Sandwich Leasehold Estate
The interest held by the sandwich leaseholder when the property is subleased to another party; a type of leasehold estate. (Dictionary)

Sublease
An agreement in which the lessee in a prior lease conveys the right of use and occupancy of a property to another, the sublessee, for a specific period of time, which may or may not be coterminous with the underlying lease term. (Dictionary)

Subordination
A contractual arrangement in which a party with a claim to certain assets agrees to make his or her claim junior, or subordinate, to the claims of another party. (Dictionary)

Surplus Land
Land that is not currently needed to support the existing use but cannot be separated from the property and sold off for another use. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel. (Dictionary)

TPO
Thermoplastic polyolefin, a resilient synthetic roof covering.

Triple Net (Net Net Net) Lease
An alternative term for a type of net lease. In some markets, a net net net lease is defined as a lease in which the tenant assumes all expenses (fixed and variable) of operating a property except that the landlord is responsible for structural maintenance, building reserves, and management; also called *NNN lease, net net net lease, or fully net lease*. (Dictionary)

(The market definition of a triple net lease varies; in some cases tenants pay for items such as roof repairs, parking lot repairs, and other similar items.)

Usable Area
The measured area of an office area, store area, or building common area on a floor. The total of all the usable areas for a floor shall equal floor usable area of that same floor. (BOMA)

Value-in-Use

The value of a property assuming a specific use, which may or may not be the property's highest and best use on the effective date of the appraisal. Value in use may or may not be equal to market value but is different conceptually. (Dictionary)

VTAB

Value of the Total Assets of a Business. The value of a going concern (i.e. the business enterprise). (Dictionary)

Qualifications of Arthur L. Schwertz, MAI

Senior Managing Director
Valbridge Property Advisors | South Louisiana

Independent Valuations for a Variable World

State Certifications

Certified General in:
Louisiana
Mississippi
Alabama
Texas
Virginia
California
Arizona
Kentucky
Tennessee
North Carolina
Maryland

Education

Bachelor of Arts
History
Louisiana State University

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Membership/Affiliations

Member: Appraisal Institute – MAI Designation
Louisiana Chapter President, 2017
Member: Celebration Church Administrative Team (Corporate Secretary)

Appraisal Institute & Related Courses

Continuing education courses taken through the Appraisal Institute and other real estate organizations.

Publications, Seminars Presented, etc.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Austin, Texas, 2019.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Baton Rouge, Louisiana, 2016.

"Appraising Commercial and Complex Properties in an Historic Area", Webinar for the Appraisal Institute, 2015.

"The Unique Appraisal: Case Studies in Appraising Special Purpose Properties", AI Connect 2014 (Appraisal Institute's National Meeting), Austin, Texas, 2014.

Schwertz, Arthur L. 2014. "History Lesson", *Valuation Magazine 2nd Quarter, 2014,* 12 – 13.

Huso, Deborah R. 2013. "On the Waterfront", *Valuation Magazine 2nd Quarter, 2013,* 22 – 27. (Contributor)

Experience

Senior Managing Director
Valbridge Property Advisors | South Louisiana (2013-Present)

Vice-President
Argote, Derbes, Graham, Shuffield & Tatje, Inc. (1992-2013)

Appraisal/valuation and consulting assignments include (but not limited to): Single-family, condominium, apartments, vacant land, funeral homes, amphitheaters, live performance theaters, office buildings, hospitals, nursing homes, specialized healthcare, hotels/motels, service stations, retail, industrial plants, warehouses, fractional interest valuations, contaminated properties, special purpose properties (port facilities, nuclear reactor simulator facility, shipyards, etc.), senior residential and healthcare facilities, feasibility studies, market studies, condemnation, construction defects, litigation support, mediations, and review appraisals.

Mr. Schwertz has provided valuation services in a wide variety of complex civil litigation including real estate, land use cases, condemnation, estate matters, property taxation, construction defect, and bankruptcy/creditors matters.

Qualified as an expert witness in Terrebonne, Jefferson, Orleans, and St. Tammany Parishes, Dallas County, Texas, Indiana Board of Tax Review, United States Court of Federal Claims, United States Court for the Eastern District of Louisiana and the United States Bankruptcy Court for the Middle District of Louisiana.

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QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Designations, Associations and Professional Awards

- Louisiana Certified General Real Estate Appraiser; License No. G-0932
- Mississippi Certified General Real Estate Appraiser; License No. GA-633
- Alabama Certified General Real Estate Appraiser; License No. G00937
- Texas Certified General Real Estate Appraiser, License No. TX-1337393-G
- California Certified General Real Estate Appraiser, License No. 3005682
- Virginia Certified General Real Estate Appraiser, License No. 400101572
- Arizona Certified General Real Estate Appraiser, License No. 1003038
- North Carolina Certified General Real Estate Appraiser, License No. A8506
- Tennessee Certified General Real Estate Appraiser, License No. 5810
- Kentucky Certified General Real Estate Appraiser, License No. 5470
- Maryland Certified General Real Estate Appraiser, License No. 40034070
- Member of the Appraisal Institute, MAI Certificate No. 12678
- Instructor of the Appraisal Institute
- Secretary, Louisiana Chapter of the Appraisal Institute, 2014
- Treasurer, Louisiana Chapter of the Appraisal Institute, 2015
- Vice-President, Louisiana Chapter of the Appraisal Institute, 2016
- President, Louisiana Chapter of the Appraisal Institute, 2017

Civic Organizations

1982	Eagle Scout, Boy Scouts of America
1983	Vigil Honor Member, Order of the Arrow, Boy Scouts of America
1999 – 2001	Board of Directors, Berean Bible Church, New Orleans, Louisiana
2000 – 2001	Treasurer, Berean Bible Church, New Orleans, Louisiana
2008 – 2010	School Board Chairman, Crescent City Christian School, Metairie, Louisiana.
2008 – Present	Board of Directors, Celebration Church, Metairie, Louisiana
2010 – Present	Corporate Secretary, Celebration Church, Metairie, Louisiana

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Expert Witness Experience

- Expert Witness, United States Court of Federal Claims
- Expert Witness, United States Bankruptcy Court, Middle and Eastern Districts of Louisiana
- Expert Witness, United States Federal Court, Eastern District of Louisiana
- Expert Witness, Civil District Court for the Parish of Orleans, State of Louisiana.
- Expert Witness, State Civil District Court, Dallas County, State of Texas.
- Expert Witness, Louisiana Tax Commission
- Expert Witness, Circuit Court for the City of Norfolk, Virginia
- Expert Witness, 9th JDC, 23rd JDC and 32nd JDC, State of Louisiana
- Expert Witness, Indiana Board of Tax Review, State of Indiana

Court Testimony

2020	GIV Green Tree Mall Investor, LLC v. Clark County Assessor, Petition Nos. 10-011-17-1-4-02088-17, 10-011-18-1-4-00149-20 and 10-011-19-1-4-00150-20, Indiana Board of Tax Review, State of Indiana.
2020	Low Land Investors, LLC, Low Land Construction Co., Inc. v. New Generation Shipbuilding, LLC, Case No. 180743, 32nd Judicial District for Terrebonne Parish, State of Louisiana (Deposition/Testimony)
2020	Cella III, LLC v. Jefferson Parish Hospital District No. 2, Civil Action No. EDLA 19-11528, Bankruptcy No. 19-01145, United States District Court for the Eastern District of Louisiana (Deposition/Testimony)
2020	Elizabeth Sewell, et al v. Sewerage & Water Board of New Orleans, Docket No. 15-4501, Division D-12, Civil District Court, Parish of Orleans, State of Louisiana (Deposition)
2019	Virginia Natural Gas, Inc. v. Colonna's Ship Yard, Incorporated, Case No. CL18-2169, Circuit Court for the City of Norfolk, State of Virginia (Deposition)
2018	Jeannette C. Liebman, Wife of/and Paul E. Ramoni, Jr. v. The United States, Docket No. 14-1165, United States Court of Federal Claims (Testimony)
2016	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 16-22173-001 and 16-22173-002, Louisiana Tax Commission, State of Louisiana. (Testimony)
2016	Appeal of Fulton Development (Harrah's Hotel) v. Orleans Parish Board of Review, Docket No. 16-22171-002, Louisiana Tax Commission, State of Louisiana (Testimony)
2016	Jeannette C. Liebman and Paul E. Ramoni, Jr. v. United States of America, Case No. 14-1165 L, United States Court of Federal Claims (Deposition)
2016	State of Louisiana, Department of Transportation & Development v. Northport Properties Partnership, Et Al, Docket No. 233,894, 9th Judicial District, Parish of Rapides, State of Louisiana (Deposition)
2015	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 15-22173-018 and 15-22173-019, Louisiana Tax Commission, State of Louisiana. (Testimony)

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Court Testimony (Continued)

2015	Doretha Z. Walker et al vs. AMID/Metro Partnership, LLC and City of New Orleans, Docket No. 07-14794, Division H-14, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2015	Sandra Oubre Sotile, Et Al vs Dooley Oubre, Et Al, Docket No. 110,622, 23rd Judicial District Court, Ascension Parish, Louisiana (Deposition)
2014	North Shore Lodging, LLC vs Commonwealth Land Title Insurance Company, Case No. 2:2013cv06070, United States Court for the Eastern District of Louisiana (Deposition)
2014	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 14-22173-003 and 14-22173-004, Louisiana Tax Commission, State of Louisiana. (Testimony)
2014	State Bank of Texas vs. Granbury Hospitality Inc., et al, Cause No. DC-12-06398, 44th State Civil District Court, Dallas County, State of Texas. (Testimony)
2013	Bruce L. Feingerts v Succession of Doris Feingerts, et al, Adversary Proceeding No. 2011-9918, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2012	Consolidated Cases of Percy J. Marchand versus Entergy New Orleans, Inc., Docket No. 2009-12695 AND Omar Duncan, Et Al, vs. Entergy New Orleans, Inc., Docket No. 2010-0714 AND Leroy Anthony Vignaud versus Entergy New Orleans, Inc. Docket No. 2010-5566, Division "C" of the Civil District Court for the Parish of Orleans, State of Louisiana. (Deposition)
2011	Pleasant View Development, LLC v Charles Anthony Bonaventure, Gina Bonaventure Porciau, Charles R. St. Romain, and Patin Engineers and Surveyors, Inc., Adversary Proceeding No. 10-1024, United States Bankruptcy Court, Middle District of Louisiana (Testimony)
2011	1522 R.E. Lee Blvd., LLC v. Bank of New Orleans, Civil District Court for the Parish of Orleans, State of Louisiana (Deposition)

Partial List of Appraisal Assignments Completed

Water and Wastewater Systems

Resolve Water, Slidell, LA

Coast Water, Slidell, LA

H20 Water and Wastewater, St. Tammany Parish, LA

Mo-Dad Utilities, Tangipahoa, Livingston, West Baton Rouge, East Baton Rouge and West Feliciana Parishes, LA

Scientific System, Jacksonville, NC

Center Ridge System, Murray, KY

Blue Creek Utilities, Jacksonville, NC

Delaplain Utilities, Georgetown, KY

River Bluff Wastewater System, River Bluff, KY

Major Retail

Green Tree Mall (±443,933 square feet), Clarksville, IN

Northshore Square Mall (±621,192 square feet), Slidell, LA

The Shoppes at Fremaux (±600,000 square feet), Slidell, LA

Slidell Factory Outlet Mall, Slidell, LA

Southland Mall (±600,000 square feet), Houma, LA

The Plaza (±1,200,000 square feet), New Orleans, LA

Belle Promenade (±750,000 square feet), Marrero, LA

Jax Brewery, New Orleans, LA

River Marketplace Shopping Center, Lafayette, LA

Natchez Mall (±268,857 square feet), Natchez, MS

Bradley Square Mall (568,508 square feet), Cleveland, TN

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Healthcare

Gilchrist at Stadium Place, Baltimore, MD
Savoy Medical Center, Mamou, LA
Methodist Hospital, New Orleans, LA
Lakeland Hospital, New Orleans, LA
Shriner's Hospital, Shreveport, LA
Fairway Surgical Hospital, Covington, LA
Southpark Hospital, Lafayette, LA
St. James Parish Hospital, St. James, LA
Green Clinic and Surgery Center, Ruston, LA
Numerous Nursing Homes throughout Louisiana
Lambeth House Assisted Living, New Orleans, LA
O'Connor Hospital, San Jose, CA
St. Louise Regional Medical Center, Gilroy, CA
St. Vincent Medical Center, Los Angeles, CA
Rosewood Assisted Living Facility, Charlottesville, VA

Industrial

Colonna's Shipyard, Norfolk, VA
Signal International Shipyard, Orange, TX
Signal International Shipyard, Mobile, AL
Signal International Shipyard, Port Arthur, TX
Signal International Shipyard, Pascagoula, MS
Bender Shipyard, Mobile, AL
Plastic Infusion Plant, Hammond, LA
UBT Coal Transfer Facility, Davant, LA
Trinity Yachts, Gulfport, MS
Trinity Yachts, New Orleans, LA
Coca-Cola Facility, Thibodaux, LA
LaShip Shipyard, Houma, LA
Dow Chemical Plant, Norco, LA
Port of St. Bernard, St. Bernard, LA
Owensboro Riverport, Owensboro, KY
Toulouse Street Wharf, Port of New Orleans, LA
Mississippi River Dock, Venice, LA
Port of Iberia, New Iberia, LA.
Kaiser Site, Port of Greater Baton Rouge, LA
Proposed Port of Cameron, Cameron, LA
Union Tank Car Plant, Alexandria, LA

Entertainment/Leisure

Dixie Landing Amusement Park, Baton Rouge, LA
Blue Bayou Water Park, Baton Rouge, LA
Proposed Aqualand Water Park, Dayton, TX
Saenger Theatre, New Orleans, LA
Orpheum Theatre, New Orleans, LA
Vina Robles Amphitheatre, Paso Robles, CA
House of Blues, New Orleans, LA
The Oaks Golf Course, Pass Christian, MS
Money Hill Golf Course, Abita Springs, LA
Pelican Pointe Golf Course, Gonzales, LA
Colonial Country Club, Harahan, LA
O'Neal Theatres, Louisiana/Mississippi
Antoine's Restaurant, New Orleans, LA
AMC Theatres, Metairie/Hammond/Houma, LA
Southern Belle Casino, St. Francisville, LA
Bayou Marina, Casino and Hotel, Chalmette, LA
Lucky Deuces Casino, Greensburg, LA
Lafitte Harbor Marina, Lafitte, LA
Vinot Marina, New Orleans, LA
River Highlands Marina, Ascension Parish, LA
Kemper Marina, Gulfport, MS
C and M Marina, Lafitte, LA
Cypress Cove Marina, Venice, LA
Starlight Movie Studios, New Orleans, LA

Schools

Clifton L. Ganus Academy, New Orleans, LA
Mt. Carmel Academy, New Orleans, LA
Israel Augustine School, New Orleans, LA
Millerville Academy, Baton Rouge, LA
Louise S. McGhee School, New Orleans, LA
Stuart Hall Academy, New Orleans, LA
Believer's Life Academy, Marrero, LA

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Special Purpose Properties

Nuclear Reactor Simulator Facility, St. Francisville, LA

Statewide Economic Obsolescence Study for Hibernia Bank, State of Louisiana

Mitigation Bank, St. James Parish, LA

Mitigation Bank, Livingston Parish, LA

Mitigation Bank, East Baton Rouge Parish, LA

Elmer's Island, Jefferson Parish, LA

USPS Facilities throughout Louisiana and Mississippi

Multi-Family

Shadowlake Apartments, Harvey, LA

Citrus Creek Apartments, Harahan, LA

Palmetto Creek Apartments, Harahan, LA

The Reserve at Acadiana, Lafayette, LA

Gravier Place Apartments, New Orleans, LA

The Saulet Apartments, New Orleans, LA

Town Oaks Apartments, Shreveport, LA

University Edge Apartments, Hattiesburg, MS

Legacy Condominiums Phase I, Gulfport, MS

Legacy Condominiums Phase II, Gulfport, MS

South Beach Condominiums, Biloxi, MS

Hotels

Super 7 Motel, Lafayette, LA

Harrah's Hotel, New Orleans, LA

Candlewoods Suites Hotel, Houma, LA

Candlewoods Suites Hotel, Lafayette, LA

Hyatt House Hotel, Columbus, MS

Hampton Inn, Harahan, LA

Hampton Inn, Metairie, LA

Hampton Inn Convention Center, New Orleans, LA

Hampton Inn Uptown, New Orleans, LA

Hampton Inn, Mobile, AL

Courtyard by Marriott, Metairie, LA, Baton Rouge,

Residence Inn, Metairie, LA

Quality Inn, Opelousas, LA

LaQuinta, Slidell, LA

Historic French Market Inn, New Orleans, LA

Wyndham Hotel, Metairie, LA

Holiday Inn Superdome, New Orleans, LA

Hilton Garden Inn, Kenner, LA

Hilton Garden Inn LA

Office Buildings

Xerox Centre, Kenner, LA

Park Tower, Lafayette, LA

Former Stewart Enterprises Building, Metairie, LA

First NBC Building, New Orleans, LA

Executive Plaza, New Orleans, LA

Chase Tower, Houma, LA

Maison Blanche Building, New Orleans, LA

Yenni Office Building, Harahan, LA

Dominion Tower, New Orleans, LA

Elmwood Tower, Harahan, LA

Freeport-McMoran Building, New Orleans, LA

Entergy Building, New Orleans, LA

1250 Poydras Building, New Orleans, LA

Subdivisions

Ashton Plantation, Luling, LA

Acadiana Subdivision, Marrero, LA

Acadian Villas, Marrero, LA

The Arbors at English Turn, New Orleans, LA

Plantation Acres, Thibodaux, LA

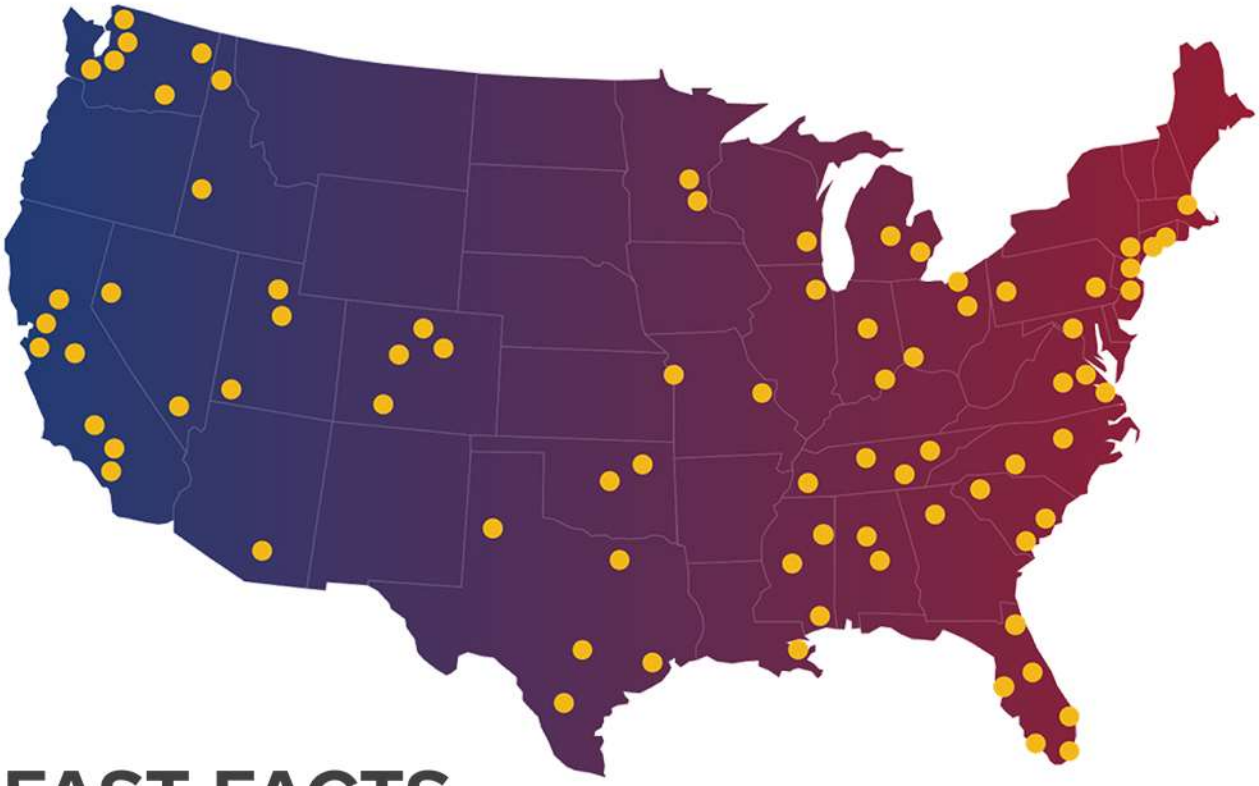
Woodstone Subdivision, Mandeville, LA

Southlake Villages, Kenner, LA

Village Green Subdivision, Harvey, LA

Oak Island Subdivision, New Orleans, LA

Valbridge
PROPERTY ADVISORS



FAST FACTS

COMPANY INFORMATION

- Valbridge is the largest independent national commercial real estate valuation and advisory services firm in North America.
  - Total number of MAI-designated appraisers: 200+ on staff
  - Total number of office locations: 70+ across U.S.
  - Total number of staff: 675+ strong
- Valbridge covers the entire U.S. from coast to coast.
- Valbridge services all property types, including special-purpose properties.
- Valbridge provides independent valuation services. We are not owned by a brokerage firm or investment company.
- Every Valbridge office is led by a senior managing director who holds the MAI designation of the Appraisal Institute.
- Valbridge is owned by our local office leaders.
- Valbridge welcomes single-property assignments as well as portfolio, multi-market and other bulk-property engagements.

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1370 N. Brea Boulevard
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2813 Coffee Road
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Modesto, CA 95355
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99 S. Lake Avenue
Suite 21
Pasadena, CA 91101
626.744.0428

3090 Fite Circle
Suite 202
Sacramento, CA 95827
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55 South Market Street
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San Luis Obispo, CA 93401
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Boulder, CO 80303
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1099 Main Avenue
Suite 311
Durango, CO 81301
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Orlando, FL 32804
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2711 Poinsettia Avenue
West Palm Beach, FL 33407
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501 Highway 12 West
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Spring 2021

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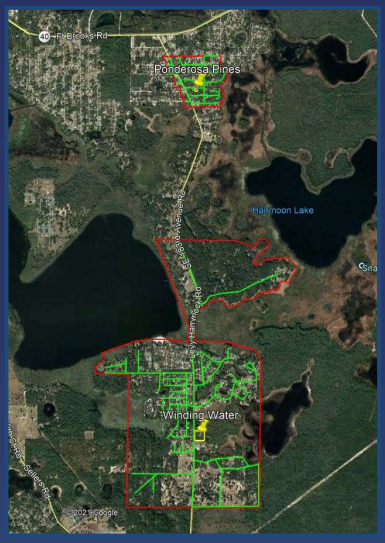
PROPERTY ADVISORS

Appraisal Report

Ponderosa Pines and Winding Waters
18536 SE 21st Ln
Silver Springs, Marion County, Florida 34488

Report Date: 05/21/2021



FOR:

Central States Water Resources
Mr. Todd Thomas
Vice-President
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

Client Number:

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05/21/2021

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Mr. Todd Thomas
Vice-President
Central States Water Resources
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

RE: Appraisal Report
Ponderosa Pines and Winding Waters
18536 SE 21st Ln
Silver Springs, Marion County, Florida 34488

Dear Mr. Thomas:

In accordance with your request, we have performed an appraisal of the above referenced property. This appraisal report sets forth the pertinent data gathered, the techniques employed, and the reasoning leading to our value opinions. This letter of transmittal does not constitute an appraisal report and the rationale behind the value opinion(s) reported cannot be adequately understood without the accompanying appraisal report.

The subject property, as referenced above, is located in Ponderosa Pines and Winding Waters subdivisions and is further identified as tax parcel numbers 3285-006-005; 40139-005-01. The subject site is a 21.02-acre or 915,631-square-foot parcel. The subject is a water distribution system consisting of 21.02 acres of easements and 4.29 acres of Fee Simple area.

We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them.

The client in this assignment is Central States Water Resources and the intended users of this report are Central States Water Resources and/or their assigns and no others. The sole intended use is for regulatory filings. The value opinions reported herein are subject to the definitions, assumptions, limiting conditions, and certifications contained in this report.

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The findings and conclusions are further contingent upon the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results:

Extraordinary Assumptions:

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions:

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Based on the analysis contained in the following report, our value conclusions are summarized as follows:

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Easement	Fee Simple
Effective Date of Value	May 11, 2021	May 11, 2021
Value Conclusion	**$102,000**	**$65,000**

Respectfully submitted,
Valbridge Property Advisors | New Orleans

Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

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Summary of Salient Facts

Property Identification

Property Name	Ponderosa Pines and Winding Waters
Property Address	18536 SE 21st Ln Silver Springs, Marion County, Florida 34488
Latitude & Longitude	29.165961, -81.845357
Tax Parcel Number	3285-006-005; 40139-005-01
Property Owner	Sunshine Utilities of Central Florida Inc

Site

Zoning	Residential Mixed Use (R-4)
FEMA Flood Map No.	12083C0590D
Flood Zone	AE, A, X
Easement Land Area	728,759 square feet
Fee Simple Land Area	186,872 square feet
Total Land Area	915,631 square feet

Valuation Opinions

Highest & Best Use - As Vacant	Residential
Reasonable Exposure Time	Six months or less
Reasonable Marketing Time	Six months or less

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Easement	Fee Simple
Effective Date of Value	May 11, 2021	May 11, 2021
Value Conclusion	**$102,000**	**$65,000**

Aerial and Front Views

AERIAL VIEW

Location Map

Introduction

Client and Intended Users of the Appraisal

The client in this assignment is Central States Water Resources and the sole intended users of this report are Central States Water Resources and/or their assigns. Under no circumstances shall any of the following parties be entitled to use or rely on the appraisal or this appraisal report:

i. The borrower(s) on any loans or financing relating to or secured by the subject property,

ii. Any guarantor(s) of such loans or financing; or

iii. Principals, shareholders, investors, members or partners in such borrower(s) or guarantors.

Intended Use of the Appraisal

The sole intended use of this report is for regulatory filings.

Real Estate Identification

The subject property is located at 18536 SE 21st Ln, Silver Springs, Marion County, Florida 34488. The subject property is further identified by the tax parcel number 3285-006-005; 40139-005-01.

Legal Description

The subject consist of easements for a water distribution system for pipes, pumps, and/or wells and tax parcels 3285-006-005 and 40139-005-01

Use of Real Estate as of the Effective Date of Value

As of the effective date of value, the subject was a utility property.

Use of Real Estate as Reflected in this Appraisal

The opinion of value for the subject as is reflects use as a utility property.

Ownership of the Property

According to Public Record, title to the subject property is vested in Sunshine Utilities of Central Florida Inc.

History of the Property

Ownership of the subject property has not changed within the past three years.

Analysis of Listings/Offers/Contracts

The subject is not currently listed for sale or under contract for sale..

Type and Definition of Value

The appraisal problem is to develop an opinion of the market value of the subject property. "Market Value," as used in this appraisal, is defined as "the most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus."

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- *Buyer and seller are typically motivated.*
- *Both parties are well informed or well advised, each acting in what they consider their own best interests;*
- *A reasonable time is allowed for exposure in the open market;*
- *Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and*
- *The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale."1*

The value conclusions apply to the value of the subject property under the market conditions presumed on the effective date of value. Please refer to the Glossary in the Addenda section for additional definitions of terms used in this report.

Valuation Scenarios, Property Rights Appraised, and Effective Dates of Value

Per the scope of our assignment we developed opinions of value for the subject property under the following scenarios of value:

Valuation Scenario	Effective Date of Value
As Is Market Value of the Easement Interest	May 11, 2021
As Is Market Value of the Fee Simple Interest	May 11, 2021

Date of Report

The date of this report is 05/21/2021.

List of Items Requested but Not Provided

- All information requested has been provided

[1] Source: Code of Federal Regulations, Title 12, Banks and Banking, Part 722.2-Definitions

Assumptions and Conditions of the Appraisal

This appraisal assignment and the opinions reported herein are subject to the General Assumptions and Limiting Conditions contained in the report and the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results.

Extraordinary Assumptions

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Scope of Work

The elements addressed in the Scope of Work are (1) the extent to which the subject property is identified, (2) the extent to which the subject property is inspected, (3) the type and extent of data researched, (4) the type and extent of analysis applied, (5) the type of appraisal report prepared, and (6) the inclusion or exclusion of items of non-realty in the development of the value opinion. These items are discussed as below.

Extent to Which the Property Was Identified

The three components of the property identification are summarized as follows:

- Legal Characteristics - The subject was legally identified via public Records and information provided by the client.
- Economic Characteristics - Economic characteristics of the subject property were identified via information provided by the client, public records, market surveys, discussions with market participants, and Valbridge Property Advisor's files, as well as a comparison to properties with similar locational and physical characteristics.
- Physical Characteristics - The subject was physically identified via a general inspection of the property via aerial maps.

Type and Extent of Data Researched

We researched and analyzed: (1) market area data, (2) property-specific market data, (3) zoning and land-use data, and (4) current data on comparable listings and transactions. We also interviewed people familiar with the subject market/property type.

Type and Extent of Analysis Applied (Valuation Methodology)

We observed surrounding land use trends, the condition of any improvements, demand for the subject property, and relevant legal limitations in concluding a highest and best use. We then valued the subject based on that highest and best use conclusion.

Appraisers develop an opinion of property value with specific appraisal procedures that reflect three distinct methods of data analysis: the Cost Approach, Sales Comparison Approach, and Income Capitalization Approach. One or more of these approaches are used in all estimations of value.

- Sales Comparison Approach - In the Sales Comparison Approach, value is indicated by recent sales and/or listings of comparable properties in the market, with the appraiser analyzing the impact of material differences in both economic and physical elements between the subject and the comparables.
- Direct Capitalization: Land Residual Method - The Land Residual Methodology involves estimating the residual net income to the land by deducting from total potential income the portion attributable to the improvements, assuming development of the site at its highest and best use. The residual income is capitalized at an appropriate rate, resulting in an indication of land value.
- Direct Capitalization: Ground Rent Capitalization – A market derived capitalization rate is applied to the net income resulting from a ground lease. This can represent the leased fee or

fee simple interest, depending on whether the income potential is reflective of a lease in place or market rental rates.

- Yield Capitalization: Subdivision Development Method – Also known as Discounted Cash Flow Analysis (DCF), the methodology is most appropriate for land having multiple lot development in the near term as the highest and best use. The current site value is represented by discounting the anticipated cash flow to a present value, taking into consideration all necessary costs of development, maintenance, administration, and sales throughout the absorption period.

All of these approaches to value were considered. We assessed the availability of data and applicability of each approach to value within the context of the characteristics of the subject property and the needs and requirements of the client. Based on this assessment, we relied upon the Sales Comparison Approach. Further discussion of the extent of our analysis and the methodology of each approach is provided later in the respective valuation sections.

Appraisal Conformity and Report Type

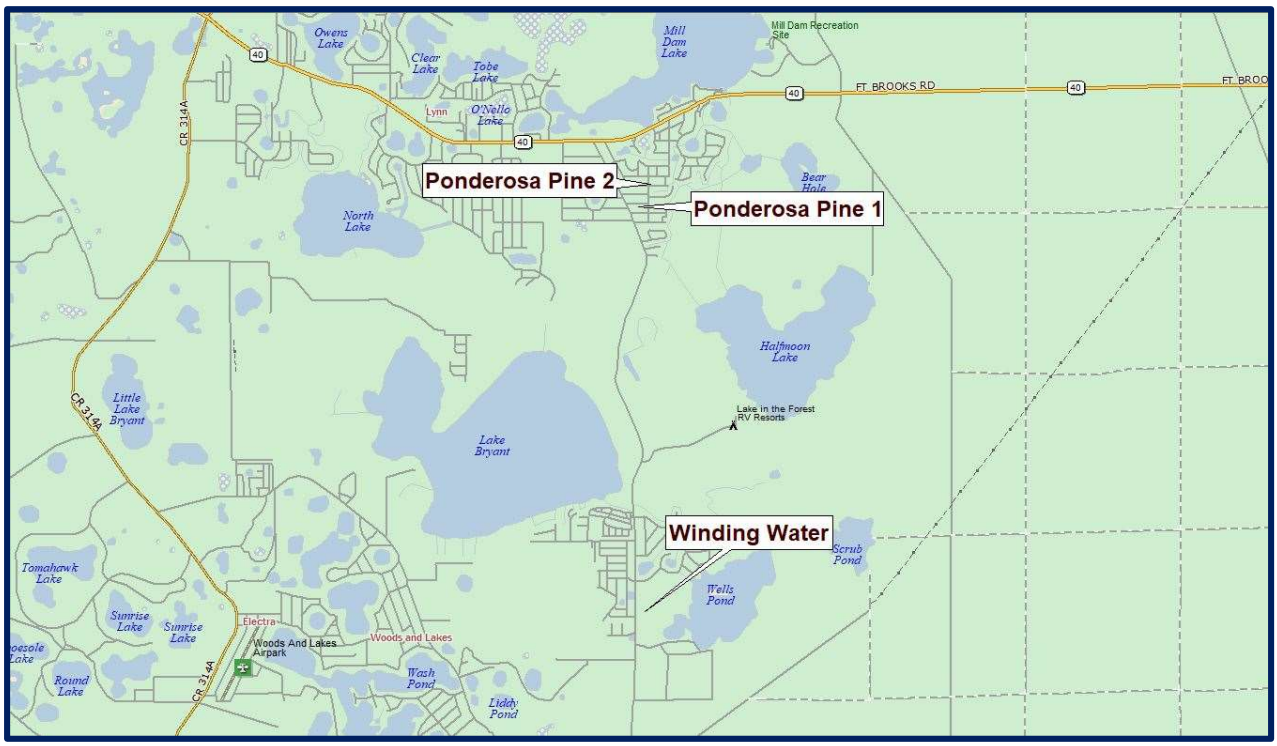
We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them. This is an Appraisal Report as defined by the Uniform Standards of Professional Appraisal Practice under Standards Rule 2-2a.

Personal Property/FF&E

All items of non-realty are excluded from this analysis. The opinion of market value developed herein is reflective of real estate only.

City and Neighborhood Analysis

NEIGHBORHOOD MAP



Overview

The subject is located in Silver Springs in Marion County, Florida.

The area of Silver Springs is characterized by being a suburban in the Ocala MSA.

Neighborhood Location and Boundaries

The subject neighborhood is located in the eastern section of Silver Springs. The area is semi-rural in nature.

The neighborhood is bounded by Highway 40 to the north, Ocala National Forest to the east, Ocklawaha River to the south, and to the west.

Transportation Access

Within the immediate area of the subject property, transportation access helps define the character of its development. Major travel and commuter routes within the area of the subject property include and SE 183rd Avenue Road. Access to the area is considered average.

Neighborhood Land Use

The subject neighborhood is located in an area with primarily residential land uses. An approximate breakdown of the development in the area is as follows:

LAND USES

Developed	40%
Residential	*80%*
Retail	*10%*
Office	*10%*
Industrial	*0%*
Vacant	60%
Total	**100%**

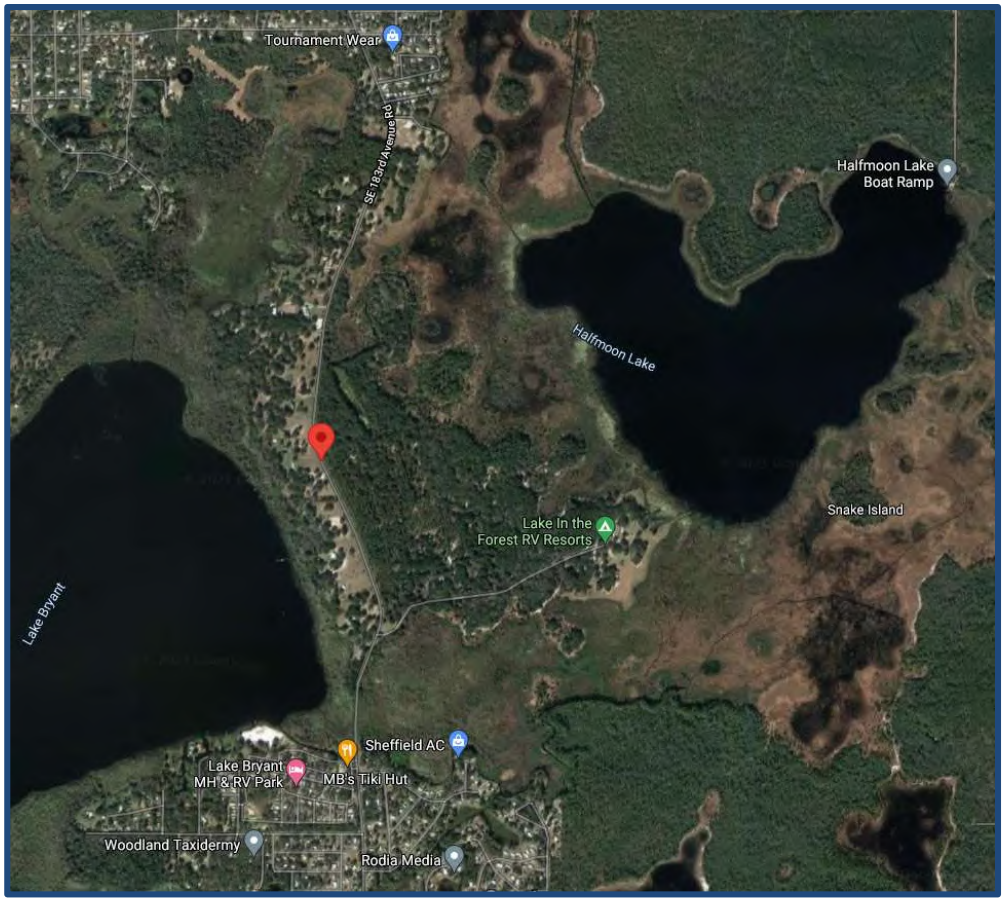
Land Use Trends

The neighborhood is not experiencing a change in land use.

Immediate Area Uses

The below aerial photo exhibits the uses located in the subject's immediate vicinity.

IMMEDIATE AREA USES



Source: Google Maps

Uses in the vicinity of the subject are primarily residential in nature. Recognized uses in the immediate area of the subject include single family residential, and small retail. As shown above, the density of uses in the area is low.

Demographics

The following table depicts the area demographics in Silver Springs within a one-, three-, and five-mile radius from the subject.

Neighborhood Demographics

Radius (Miles)	1 Mile	3 Mile	5 Mile
Population Summary			
2010 Population	1,462	4,869	7,844
2020 Population Estimate	1,506	5,054	8,290
2025 Population Projection	1,548	5,216	8,624
Annual % Change (2020 - 2025)	0.6%	0.6%	0.8%
Housing Unit Summary			
2010 Housing Units	884	2,802	4,655
% Owner Occupied	61.1%	62.3%	60.8%
% Renter Occupied	12.8%	13.5%	12.9%
2020 Housing Units	914	2,915	4,931
% Owner Occupied	58.2%	59.4%	58.0%
% Renter Occupied	15.2%	16.1%	15.3%
2025 Housing Units	940	3,006	5,128
% Owner Occupied	58.0%	59.3%	58.0%
% Renter Occupied	15.2%	16.1%	15.3%
Annual % Change (2020 - 2025)	0.7%	0.7%	0.8%
Income Summary			
2020 Median Household Income Estimate	$28,252	$30,534	$29,925
2025 Median Household Income Projection	$30,373	$33,626	$32,596
Annual % Change	1.5%	2.0%	1.7%
2020 Per Capita Income Estimate	$17,255	$18,595	$18,608
2025 Per Capita Income Projection	$18,927	$20,693	$20,854
Annual % Change	1.9%	2.2%	2.3%

Source: ESRI (ArcGIS) *(Lat: 29.165961, Lon: -81.845357)*

Within a three-mile radius, the reported population is 5,054 with a projected growth rate of approximately 0.6% annually. There are 2,915 housing units within that three-mile radius. The growth rate is expected to be 0.7% annually. Most of the housing is owner-occupied. Our research indicates that property values in the area are stable.

Within a three-mile radius, the median household income is **$**30,534. Looking ahead, annual household income growth is projected at **2.0**% per year. The average income figures suggest that the inhabitants are within the lower to middle income brackets.

Nuisances & External Obsolescence

Neighborhood properties have adequate levels of maintenance. No adverse or unfavorable factors were observed.

Neighborhood Life Cycle

Most neighborhoods are classified as being in four stages: **growth**, **stability**, **decline**, and **renewal**. Overall, the subject neighborhood is in the Stable stage of its life cycle.

Analysis and Conclusions

The neighborhood is characterized by being a suburban community of the Ocala MSA.

Site Description

The subject site is located in Ponderosa Pines and Winding Waters subdivisions. The characteristics of the site are summarized as follows:

Site Characteristics

Gross Land Area:	21.02 Acres or 915,631 SF
Fee Simple Land Area:	4.29 Acres or 186,872 SF
Easement Land Area:	16.73 Acres or 728,759 SF16.73

Flood Zone Data

Flood Map Panel/Number:	12083C0590D
Flood Zone:	AE, A, X
	Flood Zone AE is an area of special flood hazards. Properties in this classification generally require flood insurance for mortgage lending and is generally recommended.
	Flood Zone X is described as an area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Flood Insurance is not usually require in this zone.

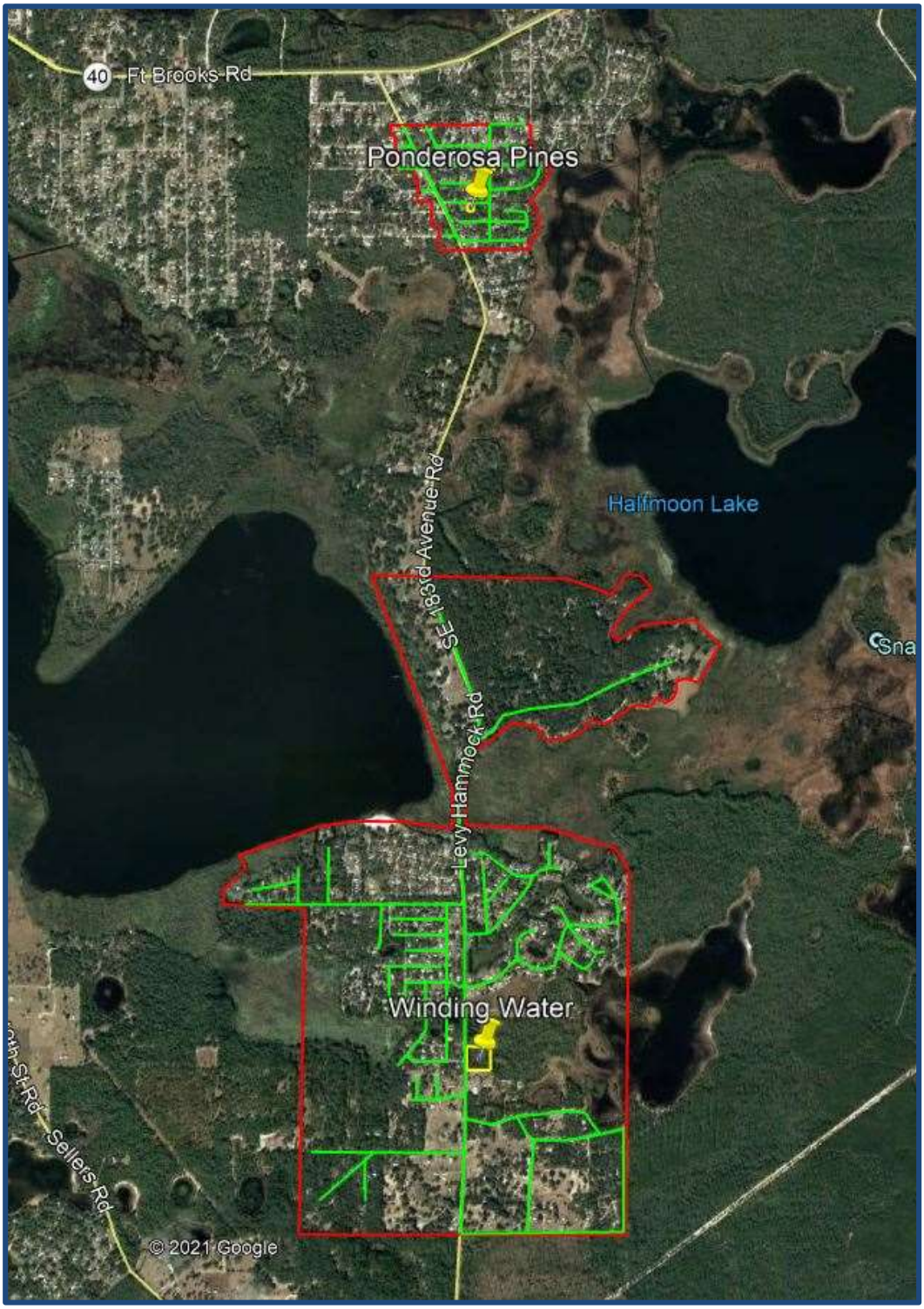
Zoning Designation

Zoning Jurisdiction:	Marion County
Zoning Classification:	R-4, Residential Mixed Use
Zoning Comments:	The Mixed Residential classification is intended to provide for medium-density, single family or two-family, residential development utilizing a mix of single or double-wide manufactured homes and conventional construction homes.

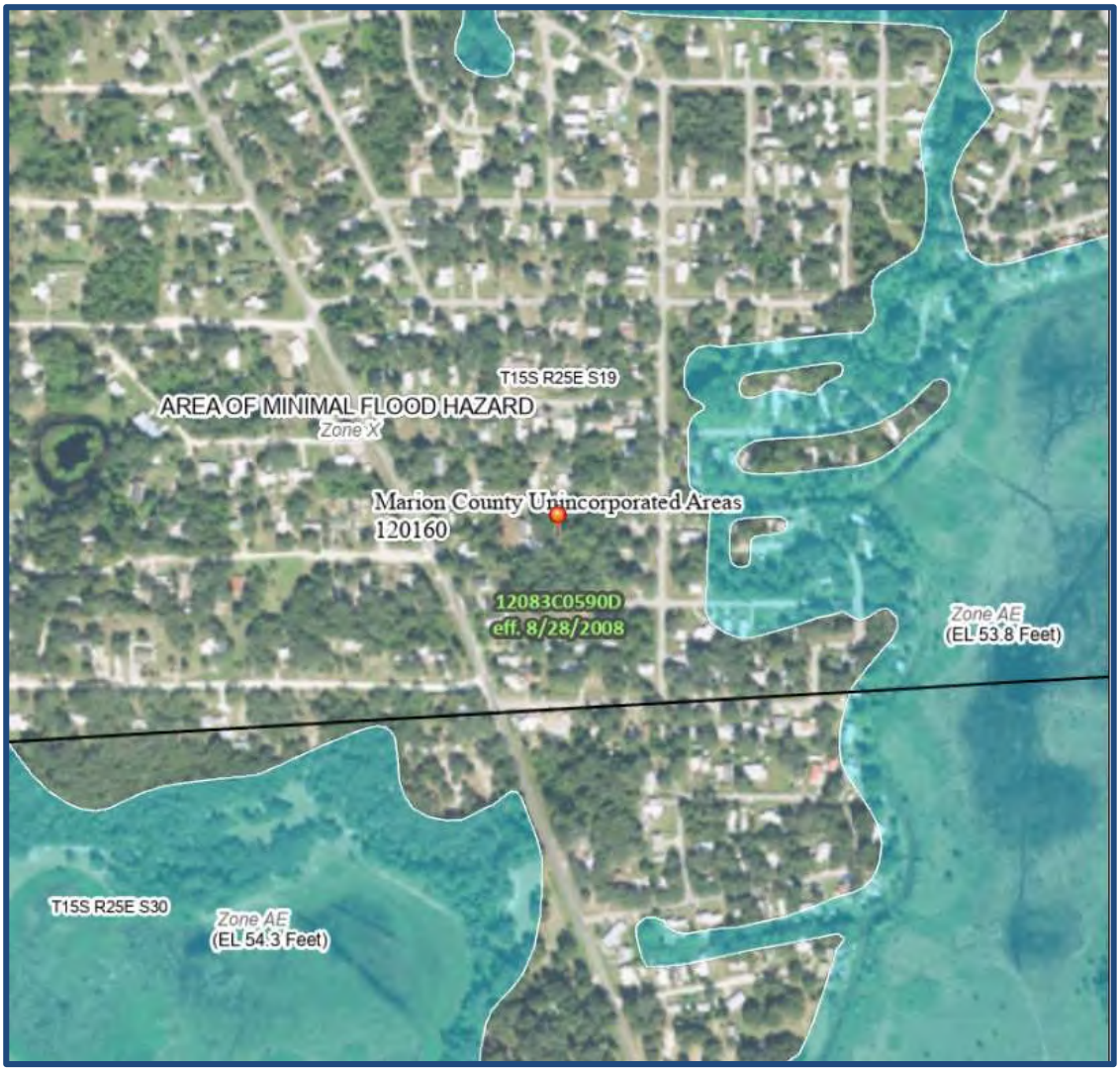
Analysis/Comments on Site

The subject is a water distribution system consisting of 21.02 acres of easements and 4.29 acres of Fee Simple area.

SERVICE AREA MAP



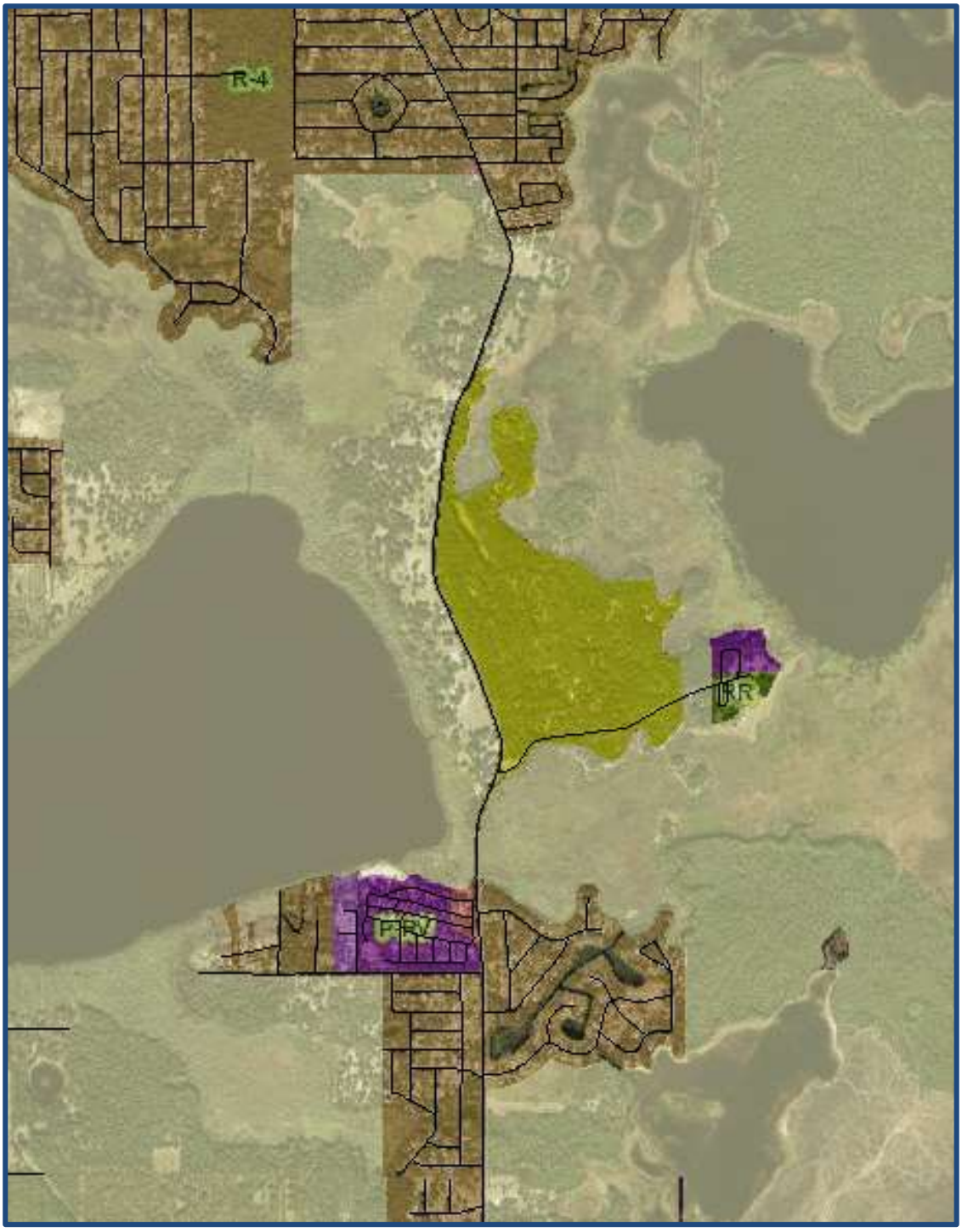
FLOOD MAP 1


T15S R25E S19
AREA OF MINIMAL FLOOD HAZARD
Zone X
Marion County Unincorporated Areas
120160
12083C0590D
eff. 8/28/2008
Zone AE
(EL 53.8 Feet)
T15S R25E S30
Zone AE
(EL 54.3 Feet)

FLOOD MAP 2

Zone AE
(EL 54.3 Feet)
Zone AE
(EL 53.8 Feet)
T15S R25E S31
Marion County Unincorporated Areas
120160
AREA OF MINIMAL FLOOD HAZARD
Zone X
12083C0590D
eff. 8/28/2008
Zone A
T16S R25E S06

ZONING MAP



Highest and Best Use

The Highest and Best Use of a property is the use that is legally permissible, physically possible, and financially feasible which results in the highest value. An opinion of the highest and best use results from consideration of the criteria noted above under the market conditions or likely conditions as of the effective date of value. Determination of highest and best use results from the judgment and analytical skills of the appraiser. It represents an opinion, not a fact. In appraisal practice, the concept of highest and best use represents the premise upon which value is based.

Analysis of Highest and Best Use As Though Vacant

The primary determinants of the highest and best use of the property As Though Vacant are the issues of (1) Legal permissibility, (2) Physical possibility, (3) Financial feasibility, and (4) Maximum productivity.

Legally Permissible

The subject site is zoned R-4, Residential Mixed Use which controls the general nature of permissible uses but is appropriate for the location and physical elements of the subject property, providing for a consistency of use with the general neighborhood. The location of the subject property is appropriate for the uses allowed, as noted previously, and a change in zoning is unlikely. There are no known easements, encroachments, covenants or other use restrictions that would unduly limit or impede development.

Physically Possible

The physical attributes allow for a number of potential uses. Elements such as size, shape, availability of utilities, known hazards (flood, environmental, etc.), and other potential influences are described in the Site Description and have been considered. There are no items of a physical nature which would adversely impact development with the legal permitted uses.

Financially Feasible

The probable use of the site for residential development conforms to the pattern of land use in the market area. A review of published yield, rental and occupancy rates suggest that there is a balanced supply and demand is sufficient to support construction costs and ensure timely absorption of additional inventory in this market. Therefore, near-term speculative development of the subject site is financially feasible.

Maximally Productive

Among the financially feasible uses, the use that results in the highest value (the maximally productive use) is the highest and best use. Considering these factors, the maximally productive use as though vacant is for residential use.

Conclusion of Highest and Best Use As Though Vacant

The conclusion of the highest and best use As Though Vacant is for residential use.

Most Probable Buyer

As of the date of value, the most probable buyer of the subject property is an owner user.

Land Valuation

Methodology

Site Value is most often estimated using the sales comparison approach. This approach develops an indication of market value by analyzing closed sales, listings, or pending sales of properties similar to the subject, focusing on the difference between the subject and the comparables using all appropriate elements of comparison. This approach is based on the principles of supply and demand, balance, externalities, and substitution, or the premise that a buyer would pay no more for a specific property than the cost of obtaining a property with the same quality, utility, and perceived benefits of ownership.

The process of developing the sales comparison approach consists of the following analyses: (1) researching and verifying transactional data, (2) selecting relevant units of comparison, (3) analyzing and adjusting the comparable sales for differences in various elements of comparison, and (4) reconciling the adjusted sales into a value indication for the subject site.

Unit of Comparison

The unit of comparison depends on land use economics and how buyers and sellers use the property. The unit of comparison in this analysis is per usable square foot.

Elements of Comparison

Elements of comparison are the characteristics or attributes of properties and transactions that cause the prices of real estate to vary. The primary elements of comparison considered in sales comparison analysis are as follows: (1) property rights conveyed, (2) financing terms, (3) conditions of sale, (4) expenditures made immediately after purchase, (5) market conditions, (6) location and (7) physical characteristics.

Comparable Sales Data

To obtain and verify comparable sales of vacant land properties, we conducted a search of public records, field surveys, interviews with knowledgeable real estate professionals in the area, and a review of our internal database.

We included five sales in our analysis, as these sales were judged to be the most comparable to develop an indication of market value for the subject property.

The following is a table summarizing each sale comparable and a map illustrating the location of each in relation to the subject.

Land Sales Summary

	Sale # 1	Sale # 2	Sale # 3	Sale # 4	Sale # 5
Sale ID	1534372	1534379	1534389	1534396	1534367
Property Name	Residential Lot	Residential Lot	Residential Lot	Residential Lot	Residential Lot
Sale Status	Closed	Closed	Closed	Closed	Closed
Location	18701 SE 21st Place Silver Springs, Florida	1481 SE 189th Avenue Silver Springs, Florida	5300 SE 183rd Avenue Road Ocklawaha, Florida	5115 SE 186th Ct Ocklawaha, Florida	18635 SE 19th Street Silver Springs, Florida
Tax ID	3285-008-025; 3285-008-026	3286-002-006	4013-001-003; 4013-001-023; 4013-001-024; 4013-001-004	4014-003-005	3285-013-007
Sales Data					
Date of Sale	1/15/2021	8/18/2019	11/6/2020	2/6/2020	8/4/2020
Sales Price	$8,000	$9,500	$24,000	$6,000	$10,450
Price/Usable Square Foot	$0.41	$0.32	$0.58	$0.41	$1.71
Grantor	Phalla Thing	Shepherd Timberlands-Rentals LLC	William Michael and Catherine Overfelt	Charles Jameson	Tara Coughron Trustee of 18635 Land Trust
Grantee	Kimberlee and Paul Sattler	Darrell J Brundle	T-Quad Fix and Finish, LLC	Chris Cubberly	Raul and Marth Castro
Recording Number	2021007499	2019062998	2020121163	2020017031	2020080438
Book/Page Number Document Number	7363/1785	6987/1761	7311/1986	7134/1699	7241/1689
Property Rights Conveyed	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple
Financing	Cash to Seller	Cash to Seller	Cash to Seller	Cash to Seller	Cash to Seller
Conditions of Sale	Arm's Length	Arm's Length	Arm's Length	Arm's Length	Arm's Length
Physical Characteristics					
Usable Land Area (Sq. Ft.)	19,602	29,621	41,382	14,810	6,098
Gross Land Area (Sq. Ft.)	19,602	29,621	41,382	14,810	6,098
Zoning	R-4	R-4	R-4	R-4	R-4
Primary Frontage	165 feet on SE 21st Place	100 feet on SE 189th Avenue	178 feet on SE 183rd Avenue Road	100 feet on SE 186th Ct	50 feet on SE 19th Street
Secondary Frontage	feet on	feet on	177 feet on SE 184th Ter	feet on	123 feet on SE 186th Street

COMPARABLE SALES MAP

Land Sales Comparison Analysis

When necessary, adjustments were made for differences in various elements of comparison, including property rights conveyed, financing terms, conditions of sale, expenditures made immediately after purchase, market conditions, location, and other physical characteristics. If the element in comparison is considered superior to that of the subject, we applied a negative adjustment. Conversely, a positive adjustment was applied if inferior. A summary of the elements of comparison follows.

Elements of Comparison	
Real Property Rights Conveyed	Adjustments for differences in property rights appraised.
Financing Terms	Comparable properties are adjusted for differences between a transaction's financing terms and those assumed in the valuation of the subject property - e.g. seller financing, loan assumption, non-market terms.
Conditions of Sale	Comparable properties are adjusted for differences in the motivations of either the buyer or a seller in the transaction. In the instant case, no adjustments are required.
Expenditures After Purchase	Comparable properties can be adjusted for any additional investment required to make the property salable – e. g. costs to cure deferred maintenance, costs to demolish and remove any portion of the improvements, costs to remediate environmental contamination and/or costs to occupy or stabilize the property.
Market Conditions	Comparable properties can be adjusted for changes in market conditions because of inflation, deflation, fluctuations in supply and demand, or other factors.
Location	Location adjustments may be required when the locational characteristics of a comparable are different from those of the subject.
Size	The size adjustment addresses variance in the physical size of the comparables and that of the subject, as a larger parcel typically commands a lower price per unit than a smaller parcel. As this is an estimate of the Across the Fence Value, it is assumed that the subject would be part of a lot similar in size to the comparables. As such, no positive adjustments for size are warranted.
Shape /Depth	This element address variance in utility due to shape and/or depth. No adjustments are warranted.
Corner Exposure	Tracts featuring corner influence typically command higher prices in the market place, as opposed to interior locations. As the subject includes both corner and interior lots, no adjustments are warranted.

Summary of Adjustments

Presented on the following page is a summary of the adjustments made to the sale comparables. As noted earlier, these quantitative adjustments were based on our market research, best judgment, and experience in the appraisal of similar properties.

LAND SALES ADJUSTMENT GRID

	Subject	Sale # 1	Sale # 2	Sale # 3	Sale # 4	Sale # 5
Sale ID		1534372	1534379	1534389	1534396	1534367
Date of Value & Sale	May-21	January-21	August-19	November-20	February-20	August-20
Unadjusted Sales Price		$8,000	$9,500	$24,000	$6,000	$10,450
Usable Square Feet	186,872	19,602	29,621	41,382	14,810	6,098
Unadjusted Sales Price per Usable Sq. Ft.		**$0.41**	**$0.32**	**$0.58**	**$0.41**	**$1.71**
Transactional Adjustments						
Property Rights Conveyed	*Easement*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*
Adjusted Sales Price		$0.41	$0.32	$0.58	$0.41	$1.71
Financing Terms	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*
Adjusted Sales Price		$0.41	$0.32	$0.58	$0.41	$1.71
Conditions of Sale	*Typical*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*
Adjusted Sales Price		$0.41	$0.32	$0.58	$0.41	$1.71
Expenditures after Sale						
Adjusted Sales Price		**$0.41**	**$0.32**	**$0.58**	**$0.41**	**$1.71**
Market Conditions Adjustments						
Elapsed Time from Date of Value		*0.32 years*	*1.73 years*	*0.51 years*	*1.26 years*	*0.77 years*
Market Trend Through	May-21	0.6%	3.5%	1.0%	2.5%	1.5%
Analyzed Sales Price		**$0.41**	**$0.33**	**$0.59**	**$0.42**	**$1.74**
Physical Adjustments						
Location	*18536 SE 21st Ln Silver Springs, Florida*	*18701 SE 21st Place Silver Springs, Florida*	*1481 SE 189th Avenue Silver Springs, Florida*	*5300 SE 183rd Avenue Road Ocklawaha, Florida*	*5115 SE 186th Ct Ocklawaha, Florida*	*18635 SE 19th Street Silver Springs, Florida*
Adjustment		-	-	-	-	-
Size	*186,872 sf*	*19,602 sf*	*29,621 sf*	*41,382 sf*	*14,810 sf*	*6,098 sf*
Adjustment		-17.0%	-14.0%	-11.0%	-19.0%	-25.0%
Net Physical Adjustment		-17.0%	-14.0%	-11.0%	-19.0%	-25.0%
Adjusted Sales Price per Usable Square Foot		**$0.34**	**$0.29**	**$0.52**	**$0.34**	**$1.30**

Conclusion

From the market data available, we used five land sales in competitive market areas which were adjusted based on pertinent elements of comparison. The following table summarizes the unadjusted and adjusted unit prices:

Land Sale Statistics

Metric	Unadjusted	Analyzed	Adjusted
Min. Sales Price per Usable Square Foot	$0.32	$0.33	$0.29
Max. Sales Price per Usable Square Foot	$1.71	$1.74	$1.30
Median Sales Price per Usable Square Foot	$0.41	$0.42	$0.34
Mean Sales Price per Usable Square Foot	$0.69	$0.70	$0.56

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.35 per usable square foot. Thus, the estimated "Across the Fence Value" of the Fee Simple Interest in the subject easements is calculated to be $255,000..

Valuation of the Fee Simple Area

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.35 per usable square foot. Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject Fee Simple area is calculated as follows:

Calculation of Fee Simple Value

Site Area		Unit Value		Market Value
186,872 Square Feet	X	$0.35	=	$65,000

Valuation of the Easement

The use to which the subject easements will be put to is for underground water and sewer pipes. As such, little or no surface improvements will be possible, but access across the surface will be allowed. It is my opinion, therefore, that such an easement will encumber approximately 40% of the ownership rights in the subject.

Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject easements is calculated as follows:

Calculation of Easement Value

Site Area		Unit Value		Market Value of Fee		Easement Use	Indicated Value of Easement
728,759 square feet	X	$0.35 PSF	=	$255,000	X	40%	$102,000

Exposure Time and Marketing Period

Based on statistical information about days on market, escrow length, and marketing times gathered through national investor surveys, sales verification, and interviews of market participants, marketing and exposure time estimates of six months or less and six months or less, respectively, are considered reasonable and appropriate for the subject property.

General Assumptions and Limiting Conditions

This appraisal is subject to the following general assumptions and limiting conditions:

1. The legal description – if furnished to us – is assumed to be correct.
2. No responsibility is assumed for legal matters, questions of survey or title, soil or subsoil conditions, engineering, availability or capacity of utilities, or other similar technical matters. The appraisal does not constitute a survey of the property appraised. All existing liens and encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management unless otherwise noted.
3. Unless otherwise noted, the appraisal will value the property as though free of contamination. Valbridge Property Advisors | New Orleans will conduct no hazardous materials or contamination inspection of any kind. It is recommended that the client hire an expert if the presence of hazardous materials or contamination poses any concern.
4. The stamps and/or consideration placed on deeds used to indicate sales are in correct relationship to the actual dollar amount of the transaction.
5. Unless otherwise noted, it is assumed there are no encroachments, zoning violations or restrictions existing in the subject property.
6. The appraiser is not required to give testimony or attendance in court by reason of this appraisal, unless previous arrangements have been made.
7. Unless expressly specified in the engagement letter, the fee for this appraisal does not include the attendance or giving of testimony by Appraiser at any court, regulatory or other proceedings, or any conferences or other work in preparation for such proceeding. If any partner or employee of Valbridge Property Advisors | New Orleans is asked or required to appear and/or testify at any deposition, trial, or other proceeding about the preparation, conclusions or any other aspect of this assignment, client shall compensate Appraiser for the time spent by the partner or employee in appearing and/or testifying and in preparing to testify according to the Appraiser's then current hourly rate plus reimbursement of expenses.
8. The values for land and/or improvements, as contained in this report, are constituent parts of the total value reported and neither is (or are) to be used in making a summation appraisal of a combination of values created by another appraiser. Either is invalidated if so used.
9. The dates of value to which the opinions expressed in this report apply are set forth in this report. We assume no responsibility for economic or physical factors occurring at some point at a later date, which may affect the opinions stated herein. The forecasts, projections, or operating estimates contained herein are based on current market conditions and anticipated short-term supply and demand factors and are subject to change with future conditions. Appraiser is not responsible for determining whether the date of value requested by Client is appropriate for Client's intended use.
10. The sketches, maps, plats and exhibits in this report are included to assist the reader in visualizing the property. The appraiser has made no survey of the property and assumed no responsibility in connection with such matters.
11. The information, estimates and opinions, which were obtained from sources outside of this office, are considered reliable. However, no liability for them can be assumed by the appraiser.

12. Possession of this report, or a copy thereof, does not carry with it the right of publication. Neither all, nor any part of the content of the report, or copy thereof (including conclusions as to property value, the identity of the appraisers, professional designations, reference to any professional appraisal organization or the firm with which the appraisers are connected), shall be disseminated to the public through advertising, public relations, news, sales, or other media without prior written consent and approval.
13. No claim is intended to be expressed for matters of expertise that would require specialized investigation or knowledge beyond that ordinarily employed by real estate appraisers. We claim no expertise in areas such as, but not limited to, legal, survey, structural, environmental, pest control, mechanical, etc.
14. This appraisal was prepared for the sole and exclusive use of the client for the function outlined herein. Any party who is not the client or intended user identified in the appraisal or engagement letter is not entitled to rely upon the contents of the appraisal without express written consent of Valbridge Property Advisors | New Orleans and Client. The Client shall not include partners, affiliates, or relatives of the party addressed herein. The appraiser assumes no obligation, liability or accountability to any third party.
15. Distribution of this report is at the sole discretion of the client, but third-parties not listed as an intended user on the face of the appraisal or the engagement letter may not rely upon the contents of the appraisal. In no event shall client give a third-party a partial copy of the appraisal report. We will make no distribution of the report without the specific direction of the client.
16. This appraisal shall be used only for the function outlined herein, unless expressly authorized by Valbridge Property Advisors | New Orleans.
17. This appraisal shall be considered in its entirety. No part thereof shall be used separately or out of context.
18. Unless otherwise noted in the body of this report, this appraisal assumes that the subject property does not fall within the areas where mandatory flood insurance is effective. Unless otherwise noted, we have not completed nor have we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property. Because the appraiser is not a surveyor, he or she makes no guarantees, express or implied, regarding this determination.
19. The flood maps are not site specific. We are not qualified to confirm the location of the subject property in relation to flood hazard areas based on the FEMA Flood Insurance Rate Maps or other surveying techniques. It is recommended that the client obtain a confirmation of the subject property's flood zone classification from a licensed surveyor.
20. If the appraisal is for mortgage loan purposes 1) we assume satisfactory completion of improvements if construction is not complete, 2) no consideration has been given for rent loss during rent-up unless noted in the body of this report, and 3) occupancy at levels consistent with our "Income and Expense Projection" are anticipated.
21. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures which would render it more or less valuable. No responsibility is assumed for such conditions or for engineering which may be required to discover them.

22. Our inspection included an observation of the land and improvements thereon only. It was not possible to observe conditions beneath the soil or hidden structural components within the improvements. We inspected the buildings involved, and reported damage (if any) by termites, dry rot, wet rot, or other infestations as a matter of information, and no guarantee of the amount or degree of damage (if any) is implied. Condition of heating, cooling, ventilation, electrical and plumbing equipment is considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. Should the client have concerns in these areas, it is the client's responsibility to order the appropriate inspections. The appraiser does not have the skill or expertise to make such inspections and assumes no responsibility for these items.

23. This appraisal does not guarantee compliance with building code and life safety code requirements of the local jurisdiction. It is assumed that all required licenses, consents, certificates of occupancy or other legislative or administrative authority from any local, state or national governmental or private entity or organization have been or can be obtained or renewed for any use on which the value conclusion contained in this report is based unless specifically stated to the contrary.

24. When possible, we have relied upon building measurements provided by the client, owner, or associated agents of these parties. In the absence of a detailed rent roll, reliable public records, or "as-built" plans provided to us, we have relied upon our own measurements of the subject improvements. We follow typical appraisal industry methods; however, we recognize that some factors may limit our ability to obtain accurate measurements including, but not limited to, property access on the day of inspection, basements, fenced/gated areas, grade elevations, greenery/shrubbery, uneven surfaces, multiple story structures, obtuse or acute wall angles, immobile obstructions, etc. Professional building area measurements of the quality, level of detail, or accuracy of professional measurement services are beyond the scope of this appraisal assignment.

25. We have attempted to reconcile sources of data discovered or provided during the appraisal process, including assessment department data. Ultimately, the measurements that are deemed by us to be the most accurate and/or reliable are used within this report. While the measurements and any accompanying sketches are considered to be reasonably accurate and reliable, we cannot guarantee their accuracy. Should the client desire more precise measurement, they are urged to retain the measurement services of a qualified professional (space planner, architect or building engineer) as an alternative source. If this alternative measurement source reflects or reveals substantial differences with the measurements used within the report, upon request of the client, the appraiser will submit a revised report for an additional fee.

26. In the absence of being provided with a detailed land survey, we have used assessment department data to ascertain the physical dimensions and acreage of the property. Should a survey prove this information to be inaccurate, upon request of the client, the appraiser will submit a revised report for an additional fee.

27. If only preliminary plans and specifications were available for use in the preparation of this appraisal, and a review of the final plans and specifications reveals substantial differences upon request of the client the appraiser will submit a revised report for an additional fee.

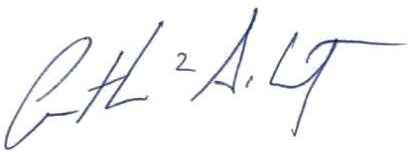
28. Unless otherwise stated in this report, the value conclusion is predicated on the assumption that the property is free of contamination, environmental impairment or hazardous materials. Unless otherwise stated, the existence of hazardous material was not observed by the appraiser and the appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation or other potentially hazardous materials may affect the value of the property. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required for discovery. The client is urged to retain an expert in this field, if desired.
29. The Americans with Disabilities Act ("ADA") became effective January 26, 1992. We have not made a specific compliance survey of the property to determine if it is in conformity with the various requirements of the ADA. It is possible that a compliance survey of the property, together with an analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this could have a negative effect on the value of the property. Since we have no direct evidence relating to this issue, we did not consider possible noncompliance with the requirements of ADA in developing an opinion of value.
30. This appraisal applies to the land and building improvements only. The value of trade fixtures, furnishings, and other equipment, or subsurface rights (minerals, gas, and oil) were not considered in this appraisal unless specifically stated to the contrary.
31. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated, unless specifically stated to the contrary.
32. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute prediction of future operating results. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance.
33. Any estimate of insurable value, if included within the scope of work and presented herein, is based upon figures developed consistent with industry practices. However, actual local and regional construction costs may vary significantly from our estimate and individual insurance policies and underwriters have varied specifications, exclusions, and non-insurable items. As such, we strongly recommend that the Client obtain estimates from professionals experienced in establishing insurance coverage. This analysis should not be relied upon to determine insurance coverage and we make no warranties regarding the accuracy of this estimate.
34. The data gathered in the course of this assignment (except data furnished by the Client) shall remain the property of the Appraiser. The appraiser will not violate the confidential nature of the appraiser-client relationship by improperly disclosing any confidential information furnished to the appraiser. Notwithstanding the foregoing, the Appraiser is authorized by the client to disclose all or any portion of the appraisal and related appraisal data to appropriate representatives of the Appraisal Institute if such disclosure is required to enable the appraiser to comply with the Bylaws and Regulations of such Institute now or hereafter in effect.

35. You and Valbridge Property Advisors | New Orleans both agree that any dispute over matters in excess of $5,000 will be submitted for resolution by arbitration. This includes fee disputes and any claim of malpractice. The arbitrator shall be mutually selected. If Valbridge Property Advisors | New Orleans and the client cannot agree on the arbitrator, the presiding head of the Local County Mediation & Arbitration panel shall select the arbitrator. Such arbitration shall be binding and final. In agreeing to arbitration, we both acknowledge that, by agreeing to binding arbitration, each of us is giving up the right to have the dispute decided in a court of law before a judge or jury. In the event that the client, or any other party, makes a claim against Valbridge Property Advisors | New Orleans or any of its employees in connections with or in any way relating to this assignment, the maximum damages recoverable by such claimant shall be the amount actually received by Valbridge Property Advisors | New Orleans for this assignment, and under no circumstances shall any claim for consequential damages be made.
36. Valbridge Property Advisors | New Orleans shall have no obligation, liability, or accountability to any third party. Any party who is not the "client" or intended user identified on the face of the appraisal or in the engagement letter is not entitled to rely upon the contents of the appraisal without the express written consent of Valbridge Property Advisors | New Orleans. "Client" shall not include partners, affiliates, or relatives of the party named in the engagement letter. Client shall hold Valbridge Property Advisors | New Orleans and its employees harmless in the event of any lawsuit brought by any third party, lender, partner, or part-owner in any form of ownership or any other party as a result of this assignment. The client also agrees that in case of lawsuit arising from or in any way involving these appraisal services, client will hold Valbridge Property Advisors | New Orleans harmless from and against any liability, loss, cost, or expense incurred or suffered by Valbridge Property Advisors | New Orleans in such action, regardless of its outcome.
37. The Valbridge Property Advisors office responsible for the preparation of this report is independently owned and operated by VPA of South Louisiana, Inc.. Neither Valbridge Property Advisors, Inc., nor any of its affiliates has been engaged to provide this report. Valbridge Property Advisors, Inc. does not provide valuation services, and has taken no part in the preparation of this report.
38. If any claim is filed against any of Valbridge Property Advisors, Inc., a Florida Corporation, its affiliates, officers or employees, or the firm providing this report, in connection with, or in any way arising out of, or relating to, this report, or the engagement of the firm providing this report, then (1) under no circumstances shall such claimant be entitled to consequential, special or other damages, except only for direct compensatory damages, and (2) the maximum amount of such compensatory damages recoverable by such claimant shall be the amount actually received by the firm engaged to provide this report.
39. This report and any associated work files may be subject to evaluation by Valbridge Property Advisors, Inc., or its affiliates, for quality control purposes.
40. Acceptance and/or use of this appraisal report constitutes acceptance of the foregoing general assumptions and limiting conditions.
41. The global outbreak of a "novel coronavirus" (known as COVID-19) was officially declared a pandemic by the World Health Organization (WHO). It is currently unknown what direct, or indirect, effect, if any, this event may have on the national economy, the local economy or the market in which the subject property is located. The reader is cautioned, and reminded that the conclusions presented in this appraisal report apply only as of the effective date(s) indicated. The appraiser makes no representation as to the effect on the subject property of this event, or any event, subsequent to the effective date of the appraisal.

Certification – Arthur L. Schwertz

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. The undersigned performed services regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
9. Arthur L. Schwertz did not personally inspected the subject property.
10. R. Carter Higdon provided significant real property appraisal assistance to the person signing this certification.
11. The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
12. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
13. As of the date of this report, the undersigned has completed the continuing education program for Designated Members of the Appraisal Institute.



Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

Addenda

Glossary

Qualifications

- Arthur L. Schwertz, MAI - Senior Managing Director

Information on Valbridge Property Advisors

Office Locations

Glossary

Definitions are taken from The Dictionary of Real Estate Appraisal, 6th Edition (Dictionary), the Uniform Standards of Professional Appraisal Practice (USPAP), and Building Owners and Managers Association International (BOMA).

Absolute Net Lease

A lease in which the tenant pays all expenses including structural maintenance, building reserves, and management; often a long-term lease to a credit tenant. (Dictionary)

Amortization

The process of retiring a debt or recovering a capital investment, typically through scheduled, systematic repayment of the principal; a program of periodic contributions to a sinking fund or debt retirement fund. (Dictionary)

As Is Market Value

The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date. (Dictionary)

Base Rent

The minimum rent stipulated in a lease. (Dictionary)

Base Year

The year on which escalation clauses in a lease are based. (Dictionary)

Building Common Area

In office buildings, the areas of the building that provide services to building tenants but which are not included in the office area or store area of any specific tenant. These areas may include, but shall not be limited to, main and auxiliary lobbies, atrium spaces at the level of the finished floor, concierge areas or security desks, conference rooms, lounges or vending areas, food service facilities, health or fitness centers, daycare facilities, locker or shower facilities, mail rooms, fire control rooms, fully enclosed courtyards outside the exterior walls, and building core and service areas such as fully enclosed mechanical or equipment rooms. Specifically excluded from building common area are floor common areas, parking space, portions of loading docks outside the building line, and major vertical penetrations. (BOMA)

Building Rentable Area

The sum of all floor rentable areas. Floor rentable area is the result of subtracting from the gross measured area of a floor the major vertical penetrations on that same floor. It is generally fixed for the life of the building and is rarely affected by changes in corridor size or configuration. (BOMA)

Bulk Value

The value of multiple units, subdivided plots, or properties in a portfolio as though sold together in a single transaction.

Certificate of Occupancy (COO)

A formal written acknowledgment by an appropriate unit of local government that a new construction or renovation project is at the stage where it meets applicable health and safety codes and is ready for commercial or residential occupancy. (Dictionary)

Common Area Maintenance (CAM)

The expense of operating and maintaining common areas; may or may not include management charges and usually does not include capital expenditures on tenant improvements or other improvements to the property. (Dictionary)

The amount of money charged to tenants for their shares of maintaining a [shopping] center's common area. The charge that a tenant pays for shared services and facilities such as electricity, security, and maintenance of parking lots. Items charged to common area maintenance may include cleaning services, parking lot sweeping and maintenance, snow removal, security and upkeep. (ICSC – International Council of Shopping Centers, 4th Ed.)

Condominium

A multiunit structure, or a unit within such a structure, with a condominium form of ownership. (Dictionary)

Conservation Easement

An interest in real estate restricting future land use to preservation, conservation, wildlife habitat, or some combination of those uses. A conservation easement may permit farming, timber harvesting, or other uses of a rural nature as well as some types of conservation-oriented development to continue, subject to the easement. (Dictionary)

Contributory Value

A type of value that reflects the amount a property or component of a property contributes to the value of another asset or to the property as a whole.

The change in the value of a property as a whole, whether positive or negative, resulting from the addition or deletion of a property component. Also called deprival value in some countries. (Dictionary)

Debt Coverage Ratio (DCR)

The ratio of net operating income to annual debt service (DCR = NOI/Im), which measures the relative ability of a property to meet its debt service out of net operating income; also called *debt service coverage ratio (DSCR)*. A larger *DCR* typically indicates a greater ability for a property to withstand a reduction of income, providing an improved safety margin for a lender. (Dictionary)

Deed Restriction

A provision written into a deed that limits the use of land. Deed restrictions usually remain in effect when title passes to subsequent owners. (Dictionary)

Depreciation

In appraisal, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date.

In accounting, an allocation of the original cost of an asset, amortizing the cost over the asset's life; calculated using a variety of standard techniques. (Dictionary)

Disposition Value

The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a specified time, which is shorter than the typical exposure time for such a property in that market.
- The property is subjected to market conditions prevailing as of the date of valuation;
- Both the buyer and seller are acting prudently and knowledgeably;
- The seller is under compulsion to sell;
- The buyer is typically motivated;
- Both parties are acting in what they consider to be their best interests;
- An adequate marketing effort will be made during the exposure time;
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Double Net (Net Net) Lease

An alternative term for a type of net lease. In some markets, a net net lease is defined as a lease in which the tenant is responsible to pay both property taxes and premiums for insuring the building(s). (Valbridge)

(The market definition of a double net lease varies depending on the market)

Easement

The right to use another's land for a stated purpose. (Dictionary)

EIFS

Exterior Insulation Finishing System. This is a type of exterior wall cladding system. Sometimes referred to as dry-vit.

Effective Date

The date on which the appraisal or review opinion applies. (SVP)

In a lease document, the date upon which the lease goes into effect. (Dictionary)

Effective Gross Income (EGI)

The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income. (Dictionary)

Effective Rent

Total base rent, or minimum rent stipulated in a lease, over the specified lease term minus rent concessions; the rent that is effectively paid by a tenant net of financial concessions provided by a landlord. (TIs). (Dictionary)

EPDM

Ethylene Propylene Diene Monomer Rubber. A type of synthetic rubber typically used for roof coverings. (Dictionary)

Escalation Clause

A clause in an agreement that provides for the adjustment of a price or rent based on some event or index. e.g., a provision to increase rent if operating expenses increase; also called *escalator clause, expense recovery clause or stop clause*. (Dictionary)

Estoppel Certificate

A signed statement by a party (such as a tenant or a mortgagee) certifying, for another's benefit, that certain facts are correct, such as that a lease exists, that there are no defaults, and that rent is paid to a certain date. (Black's) In real estate, a buyer of rental property typically requests estoppel certificates from existing tenants. Sometimes referred to as an *estoppel letter*. (Dictionary)

Excess Land

Land that is not needed to serve or support the existing use. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and is valued separately. (Dictionary)

Excess Rent
The amount by which contract rent exceeds market rent at the time of the appraisal; created by a lease favorable to the landlord (lessor) and may reflect unusual management, unknowledgeable or unusually motivated parties, a lease execution in an earlier, stronger rental market, or an agreement of the parties. (Dictionary)

Expense Stop
A clause in a lease that limits the landlord's expense obligation, which results in the lessee paying operating expenses above a stated level or amount. (Dictionary)

Exposure Time
The time a property remains on the market.
The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal;

Comment: Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market. (Dictionary)

Extraordinary Assumption
An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

Comment: Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis. (USPAP)

Fee Simple Estate
Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat. (Dictionary)

Floor Common Area
In an office building, the areas on a floor such as washrooms, janitorial closets, electrical rooms, telephone rooms, mechanical rooms, elevator lobbies, and public corridors which are available primarily for the use of tenants on that floor. (BOMA)

Full Service (Gross) Lease
A lease in which the landlord receives stipulated rent and is obligated to pay all of the property's operating and fixed expenses; also called a *full service lease*. (Dictionary)

Furniture, Fixtures, and Equipment (FF&E)
Business trade fixtures and personal property, exclusive of inventory. (Dictionary)

Going-Concern Value
An outdated label for the market value of all the tangible and intangible assets of an established and operating business with an indefinite life, as if sold in aggregate; more accurately termed the *market value of the going concern* or *market value of the total assets of the business.* (Dictionary)

Gross Building Area (GBA)
Total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls of the above-grade area. This includes mezzanines and basements if and when typically included in the market area of the type of property involved.

Gross leasable area plus all common areas.
For residential space, the total area of all floor levels measured from the exterior of the walls and including the superstructure and substructure basement; typically does not include garage space. (Dictionary)

Gross Measured Area
The total area of a building enclosed by the dominant portion (the portion of the inside finished surface of the permanent outer building wall which is 50 percent or more of the vertical floor-to-ceiling dimension, at the given point being measured as one moves horizontally along the wall), excluding parking areas and loading docks (or portions of same) outside the building line. It is generally not used for leasing purposes and is calculated on a floor by floor basis. (BOMA)

Gross Up Method
A method of calculating variable operating expenses in income-producing properties when less than 100% occupancy is assumed. Expenses reimbursed based on the amount of occupied space, rather than on the total building area, are described as "grossed up." (Dictionary)

Gross Retail Sellout
The sum of the separate and distinct market value opinions for each of the units in a condominium, subdivision development, or portfolio of properties, as of the date of valuation. The aggregate of retail values does not represent the value of all the units as though sold together in a single transaction; it is simply the total of the individual market value conclusions. Also called the *aggregate of the retail values, aggregate retail selling price or sum of the retail values.* (Dictionary)

Ground Lease
A lease that grants the right to use and occupy land. Improvements made by the ground lessee typically revert to the ground lessor at the end of the lease term. (Dictionary)

Ground Rent
The rent paid for the right to use and occupy land according to the terms of a ground lease; the portion of the total rent allocated to the underlying land. (Dictionary)

HVAC
Heating, ventilation, air conditioning (HVAC) system. A unit that regulates the temperature and distribution of heat and fresh air throughout a building. (Dictionary)

Highest and Best Use
The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

The use of an asset that maximizes its potential and that is possible, legally permissible, and financially feasible. The highest and best use may be for continuation of an asset's existing use of for some alternative use. This is determined by the use that a market participant would have in mind for the asset when formulating the price that it would be willing to bid. (IVS)

[The] highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future. (Uniform Appraisal Standards for Federal Land Acquisitions) (Dictionary)

Hypothetical Condition
A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comment: Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP)

Insurable Value
A type of value for insurance purposes. (Typically this includes replacement cost less basement excavation, foundation, underground piping and architect's fees). (Dictionary)

Investment Value
The value of a property to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market. (Dictionary)

Just Compensation
In condemnation, the amount of loss for which a property owner is compensated when his or her property is taken. Just compensation should put the owner in as good a position pecuniarily as he or she would have been if the property had not been taken. (Dictionary)

Leased Fee Interest
The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversionary right when the lease expires. (Dictionary)

Leasehold Interest
The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease. (Dictionary)

See also Positive Leasehold and Negative Leasehold.

Lessee (Tenant)
One who has the right to occupancy and use of the property of another for a period of time according to a lease agreement. (Dictionary)

Lessor (Landlord)
One who conveys the rights of occupancy and use to others under a lease agreement. (Dictionary)

Liquidation Value
The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a short time period.
- The property is subjected to market conditions prevailing as of the date of valuation.
- Both the buyer and seller are acting prudently and knowledgeably.
- The seller is under extreme compulsion to sell.
- The buyer is typically motivated.
- Both parties are acting in what they consider to be their best interests.
- A normal marketing effort is not possible due to the brief exposure time.
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.

The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Loan to Value Ratio (LTV)
The ratio between a mortgage loan and the value of the property pledged as security, usually expressed as a percentage. (Dictionary)

Major Vertical Penetrations
Stairs, elevator shafts, flues, pipe shafts, vertical ducts, and the like, and their enclosing walls. Atria, lightwells and similar penetrations above the finished floor are included in this definition. Not included, however, are vertical penetrations built for the private use of a tenant occupying office areas on more than one floor. Structural columns, openings for vertical electric cable or telephone distribution, and openings for plumbing lines are not considered to be major vertical penetrations. (BOMA)

Market Rent
The most probable rent that a property should bring in a competitive and open market under all the conditions requisite to a fair lease transaction, the lessee and the lessor each acting prudently and knowledgeably, and assuming the rent is not affected by undue stimulus. Implicit in this definition is the execution of a lease as of a specified date under conditions whereby:
Lessee and lessor are typically motivated;
Both parties are well informed or well advised, and acting in what they consider their best interests;
Payment is made in terms of cash or in terms of financial arrangements comparable thereto; and
The rent reflects specified terms and conditions, such as permitted uses, use restrictions, expense obligations, duration, concessions, rental adjustments and revaluations, renewal and purchase options, and tenant improvements (TIs). (Appraisal Institute)

Market Value
The most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Marketing Time
An opinion of the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of an appraisal. (Advisory Opinion 7 of the Appraisal Standards Board of the Appraisal Foundation)

Master Lease
A lease in which the fee owner leases a part or the entire property to a single entity (the master lease) in return for a stipulated rent. The master lessee then leases the property to multiple tenants. (Dictionary)

Modified Gross Lease
A lease in which the landlord receives stipulated rent and is obligated to pay some, but not all, of the property's operating and fixed expenses. Since assignment of expenses varies among modified gross leases, expense responsibility must always be specified. In some markets, a modified gross lease may be called a *double net lease, net net lease, partial net lease, or semi-gross le*ase. (Dictionary)

Negative Leasehold
A lease situation in which the market rent is less than the contract rent. (Dictionary)

Operating Expense Ratio
The ratio of total operating expenses to effective gross income (TOE/EGI); the complement of the net income ratio, i.e., OER = 1 – NIR (Dictionary)

Option
A legal contract, typically purchased for a stated consideration, that permits but does not require the holder of the option (known as the *optionee*) to buy, sell, or lease real estate for a stipulated period of time in accordance with specified terms; a unilateral right to exercise a privilege. (Dictionary)

Partial Interest
Divided or undivided rights in real estate that represent less than the whole, i.e., a fractional interest such as a tenancy in common, easement, or life interest. (Dictionary)

Pass Through
A tenant's portion of operating expenses that may be composed of common area maintenance (CAM), real property taxes, property insurance, and any other expenses determined in the lease agreement to be paid by the tenant. (Dictionary)

Percentage Lease
A lease in which the rent or some portion of the rent represents a specified percentage of the volume of business, productivity, or use achieved by the tenant. (Dictionary)

Positive Leasehold
A lease situation in which the market rent is greater than the contract rent. (Dictionary)

Potential Gross Income (PGI)
The total income attributable to property at full occupancy before vacancy and operating expenses are deducted. (Dictionary)

Prospective Future Value Upon Completion
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report. … The prospective market value –as completed- reflects the property's market value as of the time that development is expected to be complete. (Dictionary)

Prospective Future Value Upon Stabilization
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report …The prospective market value – as stabilized – reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. For an income-producing property, stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties. (Dictionary)

Replacement Cost
The estimated cost to construct, at current prices as of a specific date, a substitute for a building or other improvements, using modern materials and current standards, design, and layout. (Dictionary)

Reproduction Cost
The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all of the deficiencies, superadequacies, and obsolescence of the subject building. (Dictionary)

Retrospective Value Opinion
A value opinion effective as of a specified historical date. The term *retrospective* does not define a type of value. Instead, it identifies a value opinion as being effective at some specific prior date. Value as of a historical date is frequently sought in connection with property tax appeals, damage models, lease renegotiation, deficiency judgments, estate tax, and condemnation. Inclusion of the type of value with this term is appropriate, e.g., "retrospective market value opinion." (Dictionary)

Sandwich Leasehold Estate
The interest held by the sandwich leaseholder when the property is subleased to another party; a type of leasehold estate. (Dictionary)

Sublease
An agreement in which the lessee in a prior lease conveys the right of use and occupancy of a property to another, the sublessee, for a specific period of time, which may or may not be coterminous with the underlying lease term. (Dictionary)

Subordination
A contractual arrangement in which a party with a claim to certain assets agrees to make his or her claim junior, or subordinate, to the claims of another party. (Dictionary)

Surplus Land
Land that is not currently needed to support the existing use but cannot be separated from the property and sold off for another use. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel. (Dictionary)

TPO
Thermoplastic polyolefin, a resilient synthetic roof covering.

Triple Net (Net Net Net) Lease
An alternative term for a type of net lease. In some markets, a net net net lease is defined as a lease in which the tenant assumes all expenses (fixed and variable) of operating a property except that the landlord is responsible for structural maintenance, building reserves, and management; also called *NNN lease, net net net lease, or fully net lease*. (Dictionary)

(The market definition of a triple net lease varies; in some cases tenants pay for items such as roof repairs, parking lot repairs, and other similar items.)

Usable Area
The measured area of an office area, store area, or building common area on a floor. The total of all the usable areas for a floor shall equal floor usable area of that same floor. (BOMA)

Value-in-Use

The value of a property assuming a specific use, which may or may not be the property's highest and best use on the effective date of the appraisal. Value in use may or may not be equal to market value but is different conceptually. (Dictionary)

VTAB

Value of the Total Assets of a Business. The value of a going concern (i.e. the business enterprise). (Dictionary)

Qualifications of Arthur L. Schwertz, MAI

Senior Managing Director
Valbridge Property Advisors | South Louisiana

Independent Valuations for a Variable World

State Certifications

Certified General in:
Louisiana
Mississippi
Alabama
Texas
Virginia
California
Arizona
Kentucky
Tennessee
North Carolina
Maryland

Education

Bachelor of Arts
History
Louisiana State University

Contact Details

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504-541-5107 (f)
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Suite 200
New Orleans, LA 70123

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Membership/Affiliations

Member: Appraisal Institute – MAI Designation
Louisiana Chapter President, 2017
Member: Celebration Church Administrative Team (Corporate Secretary)

Appraisal Institute & Related Courses

Continuing education courses taken through the Appraisal Institute and other real estate organizations.

Publications, Seminars Presented, etc.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Austin, Texas, 2019.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Baton Rouge, Louisiana, 2016.

"Appraising Commercial and Complex Properties in an Historic Area", Webinar for the Appraisal Institute, 2015.

"The Unique Appraisal: Case Studies in Appraising Special Purpose Properties", AI Connect 2014 (Appraisal Institute's National Meeting), Austin, Texas, 2014.

Schwertz, Arthur L. 2014. "History Lesson", *Valuation Magazine 2nd Quarter, 2014,* 12 – 13.

Huso, Deborah R. 2013. "On the Waterfront", *Valuation Magazine 2nd Quarter, 2013,* 22 – 27. (Contributor)

Experience

Senior Managing Director
Valbridge Property Advisors | South Louisiana (2013-Present)

Vice-President
Argote, Derbes, Graham, Shuffield & Tatje, Inc. (1992-2013)

Appraisal/valuation and consulting assignments include (but not limited to): Single-family, condominium, apartments, vacant land, funeral homes, amphitheaters, live performance theaters, office buildings, hospitals, nursing homes, specialized healthcare, hotels/motels, service stations, retail, industrial plants, warehouses, fractional interest valuations, contaminated properties, special purpose properties (port facilities, nuclear reactor simulator facility, shipyards, etc.), senior residential and healthcare facilities, feasibility studies, market studies, condemnation, construction defects, litigation support, mediations, and review appraisals.

Mr. Schwertz has provided valuation services in a wide variety of complex civil litigation including real estate, land use cases, condemnation, estate matters, property taxation, construction defect, and bankruptcy/creditors matters.

Qualified as an expert witness in Terrebonne, Jefferson, Orleans, and St. Tammany Parishes, Dallas County, Texas, Indiana Board of Tax Review, United States Court of Federal Claims, United States Court for the Eastern District of Louisiana and the United States Bankruptcy Court for the Middle District of Louisiana.

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Designations, Associations and Professional Awards

- Louisiana Certified General Real Estate Appraiser; License No. G-0932
- Mississippi Certified General Real Estate Appraiser; License No. GA-633
- Alabama Certified General Real Estate Appraiser; License No. G00937
- Texas Certified General Real Estate Appraiser, License No. TX-1337393-G
- California Certified General Real Estate Appraiser, License No. 3005682
- Virginia Certified General Real Estate Appraiser, License No. 400101572
- Arizona Certified General Real Estate Appraiser, License No. 1003038
- North Carolina Certified General Real Estate Appraiser, License No. A8506
- Tennessee Certified General Real Estate Appraiser, License No. 5810
- Kentucky Certified General Real Estate Appraiser, License No. 5470
- Maryland Certified General Real Estate Appraiser, License No. 40034070
- Member of the Appraisal Institute, MAI Certificate No. 12678
- Instructor of the Appraisal Institute
- Secretary, Louisiana Chapter of the Appraisal Institute, 2014
- Treasurer, Louisiana Chapter of the Appraisal Institute, 2015
- Vice-President, Louisiana Chapter of the Appraisal Institute, 2016
- President, Louisiana Chapter of the Appraisal Institute, 2017

Civic Organizations

1982	Eagle Scout, Boy Scouts of America
1983	Vigil Honor Member, Order of the Arrow, Boy Scouts of America
1999 – 2001	Board of Directors, Berean Bible Church, New Orleans, Louisiana
2000 – 2001	Treasurer, Berean Bible Church, New Orleans, Louisiana
2008 – 2010	School Board Chairman, Crescent City Christian School, Metairie, Louisiana.
2008 – Present	Board of Directors, Celebration Church, Metairie, Louisiana
2010 – Present	Corporate Secretary, Celebration Church, Metairie, Louisiana

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Expert Witness Experience

- Expert Witness, United States Court of Federal Claims
- Expert Witness, United States Bankruptcy Court, Middle and Eastern Districts of Louisiana
- Expert Witness, United States Federal Court, Eastern District of Louisiana
- Expert Witness, Civil District Court for the Parish of Orleans, State of Louisiana.
- Expert Witness, State Civil District Court, Dallas County, State of Texas.
- Expert Witness, Louisiana Tax Commission
- Expert Witness, Circuit Court for the City of Norfolk, Virginia
- Expert Witness, 9th JDC, 23rd JDC and 32nd JDC, State of Louisiana
- Expert Witness, Indiana Board of Tax Review, State of Indiana

Court Testimony

2020	GIV Green Tree Mall Investor, LLC v. Clark County Assessor, Petition Nos. 10-011-17-1-4-02088-17, 10-011-18-1-4-00149-20 and 10-011-19-1-4-00150-20, Indiana Board of Tax Review, State of Indiana.
2020	Low Land Investors, LLC, Low Land Construction Co., Inc. v. New Generation Shipbuilding, LLC, Case No. 180743, 32nd Judicial District for Terrebonne Parish, State of Louisiana (Deposition/Testimony)
2020	Cella III, LLC v. Jefferson Parish Hospital District No. 2, Civil Action No. EDLA 19-11528, Bankruptcy No. 19-01145, United States District Court for the Eastern District of Louisiana (Deposition/Testimony)
2020	Elizabeth Sewell, et al v. Sewerage & Water Board of New Orleans, Docket No. 15-4501, Division D-12, Civil District Court, Parish of Orleans, State of Louisiana (Deposition)
2019	Virginia Natural Gas, Inc. v. Colonna's Ship Yard, Incorporated, Case No. CL18-2169, Circuit Court for the City of Norfolk, State of Virginia (Deposition)
2018	Jeannette C. Liebman, Wife of/and Paul E. Ramoni, Jr. v. The United States, Docket No. 14-1165, United States Court of Federal Claims (Testimony)
2016	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 16-22173-001 and 16-22173-002, Louisiana Tax Commission, State of Louisiana. (Testimony)
2016	Appeal of Fulton Development (Harrah's Hotel) v. Orleans Parish Board of Review, Docket No. 16-22171-002, Louisiana Tax Commission, State of Louisiana (Testimony)
2016	Jeannette C. Liebman and Paul E. Ramoni, Jr. v. United States of America, Case No. 14-1165 L, United States Court of Federal Claims (Deposition)
2016	State of Louisiana, Department of Transportation & Development v. Northport Properties Partnership, Et Al, Docket No. 233,894, 9th Judicial District, Parish of Rapides, State of Louisiana (Deposition)
2015	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 15-22173-018 and 15-22173-019, Louisiana Tax Commission, State of Louisiana. (Testimony)

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Court Testimony (Continued)

2015	Doretha Z. Walker et al vs. AMID/Metro Partnership, LLC and City of New Orleans, Docket No. 07-14794, Division H-14, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2015	Sandra Oubre Sotile, Et Al vs Dooley Oubre, Et Al, Docket No. 110,622, 23rd Judicial District Court, Ascension Parish, Louisiana (Deposition)
2014	North Shore Lodging, LLC vs Commonwealth Land Title Insurance Company, Case No. 2:2013cv06070, United States Court for the Eastern District of Louisiana (Deposition)
2014	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 14-22173-003 and 14-22173-004, Louisiana Tax Commission, State of Louisiana. (Testimony)
2014	State Bank of Texas vs. Granbury Hospitality Inc., et al, Cause No. DC-12-06398, 44th State Civil District Court, Dallas County, State of Texas. (Testimony)
2013	Bruce L. Feingerts v Succession of Doris Feingerts, et al, Adversary Proceeding No. 2011-9918, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2012	Consolidated Cases of Percy J. Marchand versus Entergy New Orleans, Inc., Docket No. 2009-12695 AND Omar Duncan, Et Al, vs. Entergy New Orleans, Inc., Docket No. 2010-0714 AND Leroy Anthony Vignaud versus Entergy New Orleans, Inc. Docket No. 2010-5566, Division "C" of the Civil District Court for the Parish of Orleans, State of Louisiana. (Deposition)
2011	Pleasant View Development, LLC v Charles Anthony Bonaventure, Gina Bonaventure Porciau, Charles R. St. Romain, and Patin Engineers and Surveyors, Inc., Adversary Proceeding No. 10-1024, United States Bankruptcy Court, Middle District of Louisiana (Testimony)
2011	1522 R.E. Lee Blvd., LLC v. Bank of New Orleans, Civil District Court for the Parish of Orleans, State of Louisiana (Deposition)

Partial List of Appraisal Assignments Completed

Water and Wastewater Systems

Resolve Water, Slidell, LA

Coast Water, Slidell, LA

H20 Water and Wastewater, St. Tammany Parish, LA

Mo-Dad Utilities, Tangipahoa, Livingston, West Baton Rouge, East Baton Rouge and West Feliciana Parishes, LA

Scientific System, Jacksonville, NC

Center Ridge System, Murray, KY

Blue Creek Utilities, Jacksonville, NC

Delaplain Utilities, Georgetown, KY

River Bluff Wastewater System, River Bluff, KY

Major Retail

Green Tree Mall (±443,933 square feet), Clarksville, IN

Northshore Square Mall (±621,192 square feet), Slidell, LA

The Shoppes at Fremaux (±600,000 square feet), Slidell, LA

Slidell Factory Outlet Mall, Slidell, LA

Southland Mall (±600,000 square feet), Houma, LA

The Plaza (±1,200,000 square feet), New Orleans, LA

Belle Promenade (±750,000 square feet), Marrero, LA

Jax Brewery, New Orleans, LA

River Marketplace Shopping Center, Lafayette, LA

Natchez Mall (±268,857 square feet), Natchez, MS

Bradley Square Mall (568,508 square feet), Cleveland, TN

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Healthcare

Gilchrist at Stadium Place, Baltimore, MD
Savoy Medical Center, Mamou, LA
Methodist Hospital, New Orleans, LA
Lakeland Hospital, New Orleans, LA
Shriner's Hospital, Shreveport, LA
Fairway Surgical Hospital, Covington, LA
Southpark Hospital, Lafayette, LA
St. James Parish Hospital, St. James, LA
Green Clinic and Surgery Center, Ruston, LA
Numerous Nursing Homes throughout Louisiana
Lambeth House Assisted Living, New Orleans, LA
O'Connor Hospital, San Jose, CA
St. Louise Regional Medical Center, Gilroy, CA
St. Vincent Medical Center, Los Angeles, CA
Rosewood Assisted Living Facility, Charlottesville, VA

Industrial

Colonna's Shipyard, Norfolk, VA
Signal International Shipyard, Orange, TX
Signal International Shipyard, Mobile, AL
Signal International Shipyard, Port Arthur, TX
Signal International Shipyard, Pascagoula, MS
Bender Shipyard, Mobile, AL
Plastic Infusion Plant, Hammond, LA
UBT Coal Transfer Facility, Davant, LA
Trinity Yachts, Gulfport, MS
Trinity Yachts, New Orleans, LA
Coca-Cola Facility, Thibodaux, LA
LaShip Shipyard, Houma, LA
Dow Chemical Plant, Norco, LA
Port of St. Bernard, St. Bernard, LA
Owensboro Riverport, Owensboro, KY
Toulouse Street Wharf, Port of New Orleans, LA
Mississippi River Dock, Venice, LA
Port of Iberia, New Iberia, LA.
Kaiser Site, Port of Greater Baton Rouge, LA
Proposed Port of Cameron, Cameron, LA
Union Tank Car Plant, Alexandria, LA

Entertainment/Leisure

Dixie Landing Amusement Park, Baton Rouge, LA
Blue Bayou Water Park, Baton Rouge, LA
Proposed Aqualand Water Park, Dayton, TX
Saenger Theatre, New Orleans, LA
Orpheum Theatre, New Orleans, LA
Vina Robles Amphitheatre, Paso Robles, CA
House of Blues, New Orleans, LA
The Oaks Golf Course, Pass Christian, MS
Money Hill Golf Course, Abita Springs, LA
Pelican Pointe Golf Course, Gonzales, LA
Colonial Country Club, Harahan, LA
O'Neal Theatres, Louisiana/Mississippi
Antoine's Restaurant, New Orleans, LA
AMC Theatres, Metairie/Hammond/Houma, LA
Southern Belle Casino, St. Francisville, LA
Bayou Marina, Casino and Hotel, Chalmette, LA
Lucky Deuces Casino, Greensburg, LA
Lafitte Harbor Marina, Lafitte, LA
Vinot Marina, New Orleans, LA
River Highlands Marina, Ascension Parish, LA
Kemper Marina, Gulfport, MS
C and M Marina, Lafitte, LA
Cypress Cove Marina, Venice, LA
Starlight Movie Studios, New Orleans, LA

Schools

Clifton L. Ganus Academy, New Orleans, LA
Mt. Carmel Academy, New Orleans, LA
Israel Augustine School, New Orleans, LA
Millerville Academy, Baton Rouge, LA
Louise S. McGhee School, New Orleans, LA
Stuart Hall Academy, New Orleans, LA
Believer's Life Academy, Marrero, LA

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Special Purpose Properties

Nuclear Reactor Simulator Facility, St. Francisville, LA

Statewide Economic Obsolescence Study for Hibernia Bank, State of Louisiana

Mitigation Bank, St. James Parish, LA

Mitigation Bank, Livingston Parish, LA

Mitigation Bank, East Baton Rouge Parish, LA

Elmer's Island, Jefferson Parish, LA

USPS Facilities throughout Louisiana and Mississippi

Multi-Family

Shadowlake Apartments, Harvey, LA

Citrus Creek Apartments, Harahan, LA

Palmetto Creek Apartments, Harahan, LA

The Reserve at Acadiana, Lafayette, LA

Gravier Place Apartments, New Orleans, LA

The Saulet Apartments, New Orleans, LA

Town Oaks Apartments, Shreveport, LA

University Edge Apartments, Hattiesburg, MS

Legacy Condominiums Phase I, Gulfport, MS

Legacy Condominiums Phase II, Gulfport, MS

South Beach Condominiums, Biloxi, MS

Hotels

Super 7 Motel, Lafayette, LA

Harrah's Hotel, New Orleans, LA

Candlewoods Suites Hotel, Houma, LA

Candlewoods Suites Hotel, Lafayette, LA

Hyatt House Hotel, Columbus, MS

Hampton Inn, Harahan, LA

Hampton Inn, Metairie, LA

Hampton Inn Convention Center, New Orleans, LA

Hampton Inn Uptown, New Orleans, LA

Hampton Inn, Mobile, AL

Courtyard by Marriott, Metairie, LA, Baton Rouge,

Residence Inn, Metairie, LA

Quality Inn, Opelousas, LA

LaQuinta, Slidell, LA

Historic French Market Inn, New Orleans, LA

Wyndham Hotel, Metairie, LA

Holiday Inn Superdome, New Orleans, LA

Hilton Garden Inn, Kenner, LA

Hilton Garden Inn LA

Office Buildings

Xerox Centre, Kenner, LA

Park Tower, Lafayette, LA

Former Stewart Enterprises Building, Metairie, LA

First NBC Building, New Orleans, LA

Executive Plaza, New Orleans, LA

Chase Tower, Houma, LA

Maison Blanche Building, New Orleans, LA

Yenni Office Building, Harahan, LA

Dominion Tower, New Orleans, LA

Elmwood Tower, Harahan, LA

Freeport-McMoran Building, New Orleans, LA

Entergy Building, New Orleans, LA

1250 Poydras Building, New Orleans, LA

Subdivisions

Ashton Plantation, Luling, LA

Acadiana Subdivision, Marrero, LA

Acadian Villas, Marrero, LA

The Arbors at English Turn, New Orleans, LA

Plantation Acres, Thibodaux, LA

Woodstone Subdivision, Mandeville, LA

Southlake Villages, Kenner, LA

Village Green Subdivision, Harvey, LA

Oak Island Subdivision, New Orleans, LA

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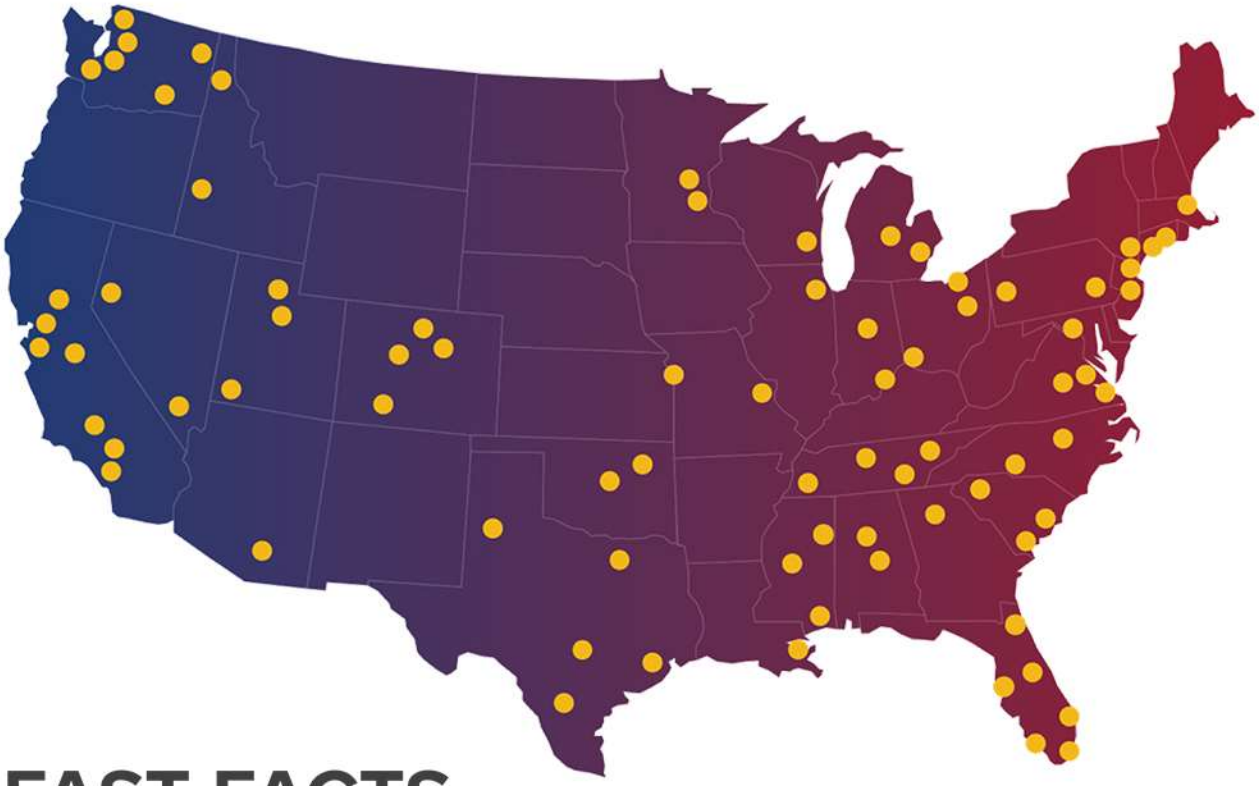

FAST FACTS

COMPANY INFORMATION

- Valbridge is the largest independent national commercial real estate valuation and advisory services firm in North America.
  - Total number of MAI-designated appraisers: 200+ on staff
  - Total number of office locations: 70+ across U.S.
  - Total number of staff: 675+ strong
- Valbridge covers the entire U.S. from coast to coast.
- Valbridge services all property types, including special-purpose properties.
- Valbridge provides independent valuation services. We are not owned by a brokerage firm or investment company.
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Spring 2021

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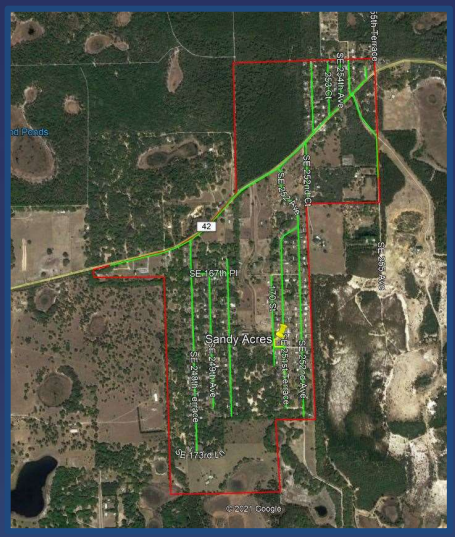
Appraisal Report

Sandy Acres
16968 SE 251st Ter
Umatilla, Lake County, Florida 32784

Report Date: 05-12-2021



FOR:

Central States Water Resources
Mr. Todd Thomas
Vice-President
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

Client Number:

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05-12-2021

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Mr. Todd Thomas
Vice-President
Central States Water Resources
500 Northwest Plaza Drive, Suite 500
St. Ann, Missouri 63074

RE: Appraisal Report
Sandy Acres
16968 SE 251st Ter
Umatilla, Lake County, Florida 32784

Dear Mr. Thomas:

In accordance with your request, we have performed an appraisal of the above referenced property. This appraisal report sets forth the pertinent data gathered, the techniques employed, and the reasoning leading to our value opinions. This letter of transmittal does not constitute an appraisal report and the rationale behind the value opinion(s) reported cannot be adequately understood without the accompanying appraisal report.

The subject property, as referenced above, is located in Sandy Acres Subdivision and is further identified as tax parcel numbers 51138-004-12. The subject site is a 7.82-acre or 340,639-square-foot parcel. The subject property is a water distribution system consisting of 7.38 acres of easements and 0.44 acres of Fee Simple area.

We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them.

The client in this assignment is Central States Water Resources and the intended users of this report are Central States Water Resources and/or their assigns and no others. The sole intended use is for regulatory filings. The value opinions reported herein are subject to the definitions, assumptions, limiting conditions, and certifications contained in this report.

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The findings and conclusions are further contingent upon the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results:

Extraordinary Assumptions:

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions:

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Based on the analysis contained in the following report, our value conclusions are summarized as follows:

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Easement	Fee Simple
Effective Date of Value	May 12, 2021	May 12, 2021
Value Conclusion	**$64,000**	**$10,000**

Respectfully submitted,
Valbridge Property Advisors | New Orleans

Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

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Summary of Salient Facts

Property Identification

Property Name	Sandy Acres
Property Address	16968 SE 251st Ter Umatilla, Lake County, Florida 32784
Latitude & Longitude	28.975849, -81.73785
Tax Parcel Number	51138-004-12
Property Owner	Sunshine Utilities of Central Florida Inc

Site

Zoning	Residential Mixed Use, Commercial (R-4, A2, B4, B2)
FEMA Flood Map No.	12083C0955D
Flood Zone	X
Easement Land Area	321,473 square feet
Fee Simple Land Area	19,166 square feet
Total Land Area	340,639 square feet

Valuation Opinions

Highest & Best Use - As Vacant	Residential
Reasonable Exposure Time	Six months or less
Reasonable Marketing Time	Six months or less

Value Conclusions

Component	As Is	As Is
Value Type	Market Value	Market Value
Property Rights Appraised	Easement	Fee Simple
Effective Date of Value	May 12, 2021	May 12, 2021
Value Conclusion	**$64,000**	**$10,000**

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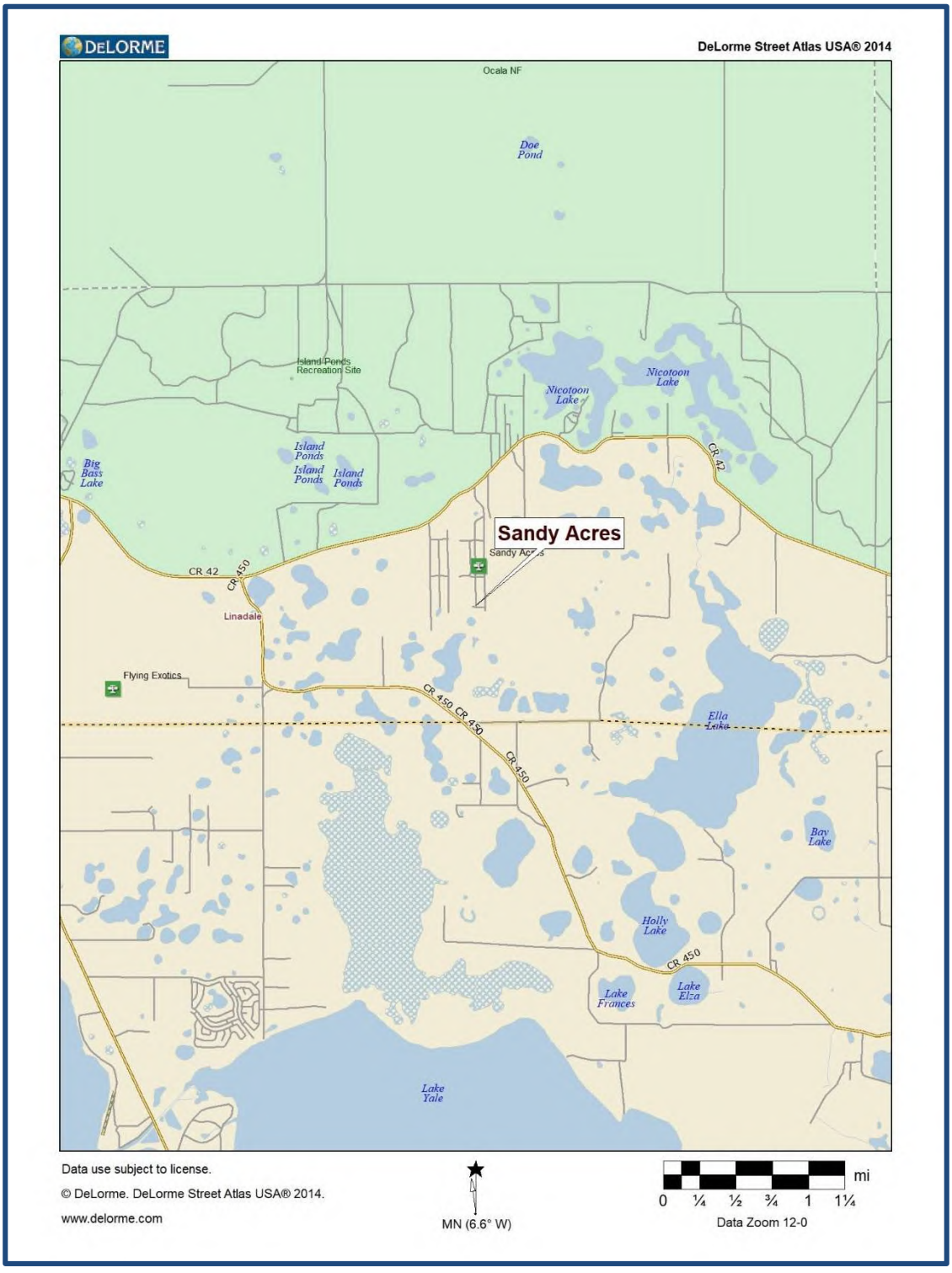
Aerial and Front Views

AERIAL VIEW

Location Map



Introduction

Client and Intended Users of the Appraisal

The client in this assignment is Central States Water Resources and the sole intended users of this report are Central States Water Resources and/or their assigns. Under no circumstances shall any of the following parties be entitled to use or rely on the appraisal or this appraisal report:

i. The borrower(s) on any loans or financing relating to or secured by the subject property,

ii. Any guarantor(s) of such loans or financing; or

iii. Principals, shareholders, investors, members or partners in such borrower(s) or guarantors.

Intended Use of the Appraisal

The sole intended use of this report is for regulatory filings.

Real Estate Identification

The subject property is located at 16968 SE 251st Ter, Umatilla, Lake County, Florida 32784. The subject property is further identified by the tax parcel number 51138-004-12.

Legal Description

The subject consists of easements for a water distribution system pipes, pumps, and/or wells and Tax Parcel 51138-004-12.

Use of Real Estate as of the Effective Date of Value

As of the effective date of value, the subject was a utility property.

Use of Real Estate as Reflected in this Appraisal

The opinion of value for the subject as is reflects use as a utility property.

Ownership of the Property

According to Public Records, title to the subject property is vested in Sunshine Utilities of Central Florida Inc.

History of the Property

Ownership of the subject property has not changed within the past three years.

Analysis of Listings/Offers/Contracts

The subject is not currently listed for sale or under contract for sale..

Type and Definition of Value

The appraisal problem is to develop an opinion of the market value of the subject property. "Market Value," as used in this appraisal, is defined as "the most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus." Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- *Buyer and seller are typically motivated.*
- *Both parties are well informed or well advised, each acting in what they consider their own best interests;*
- *A reasonable time is allowed for exposure in the open market;*
- *Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and*
- *The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale."1*

The value conclusions apply to the value of the subject property under the market conditions presumed on the effective date of value. Please refer to the Glossary in the Addenda section for additional definitions of terms used in this report.

Valuation Scenarios, Property Rights Appraised, and Effective Dates of Value

Per the scope of our assignment we developed opinions of value for the subject property under the following scenarios of value:

Valuation Scenario	Effective Date of Value
As Is Market Value of the Easement Interest	May 12, 2021
As Is Market Value of the Fee Simple Interest	May 12, 2021

Date of Report

The date of this report is 05-12-2021.

List of Items Requested but Not Provided

- All information requested has been provided

Assumptions and Conditions of the Appraisal

This appraisal assignment and the opinions reported herein are subject to the General Assumptions and Limiting Conditions contained in the report and the following extraordinary assumptions and/or hypothetical conditions, the use of which might have affected the assignment results.

[1] Source: Code of Federal Regulations, Title 12, Banks and Banking, Part 722.2-Definitions

Extraordinary Assumptions

- The appraiser was unable to locate any documents definitively specifying the location or width of the utility easements. However, a visual inspection of the neighborhood indicates the presence of water lines near the street frontage and it has been assumed for purposes of this analysis that they lie within a 10' utility easement.

Hypothetical Conditions

- This appraisal is predicated on the hypothetical condition that the property is unimproved and ready for development.

Scope of Work

The elements addressed in the Scope of Work are (1) the extent to which the subject property is identified, (2) the extent to which the subject property is inspected, (3) the type and extent of data researched, (4) the type and extent of analysis applied, (5) the type of appraisal report prepared, and (6) the inclusion or exclusion of items of non-realty in the development of the value opinion. These items are discussed as below.

Extent to Which the Property Was Identified

The three components of the property identification are summarized as follows:

- Legal Characteristics - The subject was legally identified via public Records and information provided by the client.
- Economic Characteristics - Economic characteristics of the subject property were identified via information provided by the client, public records, market surveys, discussions with market participants, and Valbridge Property Advisor's files, as well as a comparison to properties with similar locational and physical characteristics.
- Physical Characteristics - The subject was physically identified via a general inspection of the property via aerial maps.

Type and Extent of Data Researched

We researched and analyzed: (1) market area data, (2) property-specific market data, (3) zoning and land-use data, and (4) current data on comparable listings and transactions. We also interviewed people familiar with the subject market/property type.

Type and Extent of Analysis Applied (Valuation Methodology)

We observed surrounding land use trends, the condition of any improvements, demand for the subject property, and relevant legal limitations in concluding a highest and best use. We then valued the subject based on that highest and best use conclusion.

Appraisers develop an opinion of property value with specific appraisal procedures that reflect three distinct methods of data analysis: the Cost Approach, Sales Comparison Approach, and Income Capitalization Approach. One or more of these approaches are used in all estimations of value.

- Sales Comparison Approach - In the Sales Comparison Approach, value is indicated by recent sales and/or listings of comparable properties in the market, with the appraiser analyzing the impact of material differences in both economic and physical elements between the subject and the comparables.
- Direct Capitalization: Land Residual Method - The Land Residual Methodology involves estimating the residual net income to the land by deducting from total potential income the portion attributable to the improvements, assuming development of the site at its highest and best use. The residual income is capitalized at an appropriate rate, resulting in an indication of land value.
- Direct Capitalization: Ground Rent Capitalization – A market derived capitalization rate is applied to the net income resulting from a ground lease. This can represent the leased fee or

fee simple interest, depending on whether the income potential is reflective of a lease in place or market rental rates.

- Yield Capitalization: Subdivision Development Method – Also known as Discounted Cash Flow Analysis (DCF), the methodology is most appropriate for land having multiple lot development in the near term as the highest and best use. The current site value is represented by discounting the anticipated cash flow to a present value, taking into consideration all necessary costs of development, maintenance, administration, and sales throughout the absorption period.

All of these approaches to value were considered. We assessed the availability of data and applicability of each approach to value within the context of the characteristics of the subject property and the needs and requirements of the client. Based on this assessment, we relied upon the Sales Comparison Approach. Further discussion of the extent of our analysis and the methodology of each approach is provided later in the respective valuation sections.

Appraisal Conformity and Report Type

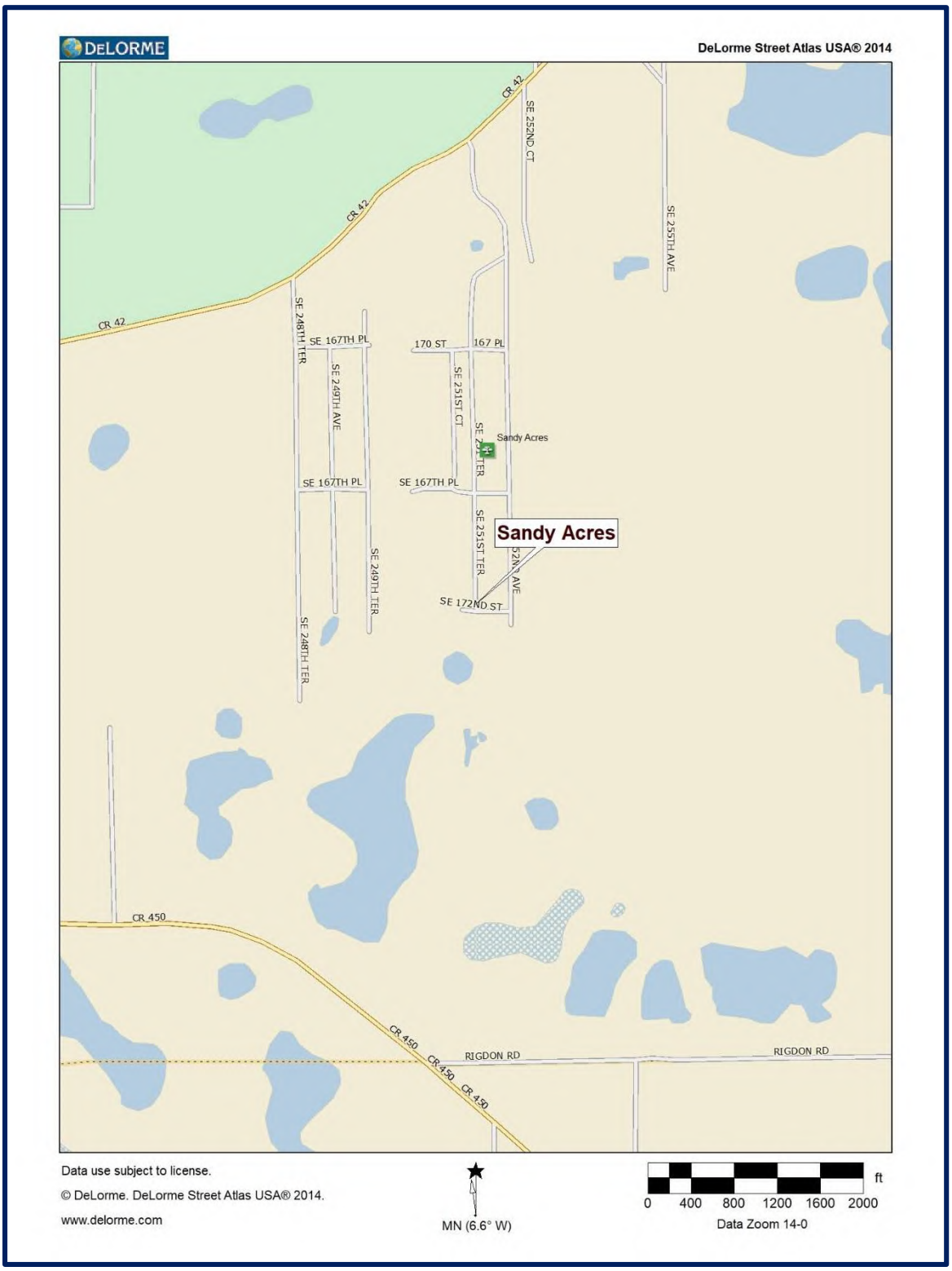
We developed our analyses, opinions, and conclusions and prepared this report in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation; the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute; and the requirements of our client as we understand them. This is an Appraisal Report as defined by the Uniform Standards of Professional Appraisal Practice under Standards Rule 2-2a.

Personal Property/FF&E

All items of non-realty are excluded from this analysis. The opinion of market value developed herein is reflective of real estate only.

City and Neighborhood Analysis

NEIGHBORHOOD MAP



Overview

The subject is located near Umatilla in Marion County, Florida.

The area is characterized by being a rural area located between the cities of Ocala and Orlando.

Neighborhood Location and Boundaries

The subject neighborhood is located in northwest of Umatilla. The area is rural in nature.

The neighborhood is bounded by FR 587 to the north, Ella Lake to the east, Marion County Line to the south, and SE Highway 452 to the west.

Transportation Access

Within the immediate area of the subject property, transportation access helps define the character of its development. Major travel and commuter routes within the area of the subject property include SE Highway 42. Access to the area is considered average.

Neighborhood Land Use

The subject neighborhood is located in an area with primarily residential land uses. An approximate breakdown of the development in the area is as follows:

LAND USES

Developed	25%
Residential	*90%*
Retail	*10%*
Office	*0%*
Industrial	*0%*
Vacant	75%
Total	**100%**

Land Use Trends

The neighborhood is not experiencing a change in land use.

Demographics

The following table depicts the area demographics in Umatilla within a one-, three-, and five-mile radius from the subject.

Neighborhood Demographics

Radius (Miles)	1 Mile	3 Mile	5 Mile
Population Summary			
2010 Population	900	2,118	5,743
2020 Population Estimate	936	2,288	6,319
2025 Population Projection	964	2,651	7,254
Annual % Change (2020 - 2025)	0.6%	3.0%	2.8%
Housing Unit Summary			
2010 Housing Units	368	968	2,822
% Owner Occupied	54.3%	62.0%	66.1%
% Renter Occupied	22.8%	18.1%	15.9%
2020 Housing Units	379	1,042	3,102
% Owner Occupied	50.1%	59.4%	64.0%
% Renter Occupied	26.6%	20.5%	17.7%
2025 Housing Units	389	1,185	3,481
% Owner Occupied	50.4%	63.8%	66.9%
% Renter Occupied	26.5%	18.0%	16.1%
Annual % Change (2020 - 2025)	0.8%	2.7%	2.4%
Income Summary			
2020 Median Household Income Estimate	$35,533	$44,073	$42,724
2025 Median Household Income Projection	$35,960	$49,449	$47,805
Annual % Change	0.2%	2.3%	2.3%
2020 Per Capita Income Estimate	$17,105	$22,520	$23,978
2025 Per Capita Income Projection	$18,052	$26,255	$27,666
Annual % Change	1.1%	3.1%	2.9%

Source: ESRI (ArcGIS) *(Lat: 28.975849, Lon: -81.73785)*

Within a three-mile radius, the reported population is 2,288 with a projected growth rate of approximately 3.0% annually. There are 1,042 housing units within that three-mile radius. The growth rate is expected to be 2.7% annually. Most of the housing is owner-occupied. Our research indicates that property values in the area are stable.

Within a three-mile radius, the median household income is **$**44,073. Looking ahead, annual household income growth is projected at **2.3**% per year. The average income figures suggest that the inhabitants are within the lower to middle income brackets.

Nuisances & External Obsolescence

Neighborhood properties have adequate levels of maintenance. No adverse or unfavorable factors were observed.

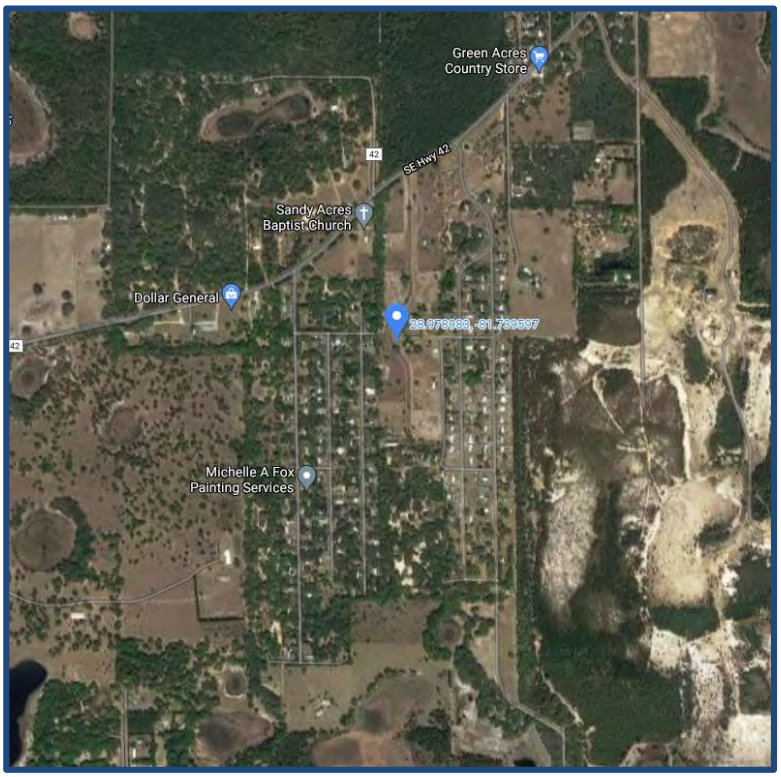
Neighborhood Life Cycle

Most neighborhoods are classified as being in four stages: **growth**, **stability**, **decline**, and **renewal**. Overall, the subject neighborhood is in the Stable stage of its life cycle.

Immediate Area Uses

The below aerial photo exhibits the uses located in the subject's immediate vicinity.

IMMEDIATE AREA USES



Source: Google Maps

Uses along SE Highway 42 in the vicinity of the subject are primarily residential in nature. Other than single family uses, there are few recognized uses in the immediate area of the subject. As shown above, the density of uses in the area is low.

Analysis and Conclusions

The neighborhood is characterized by being a small rural bedroom community between Ocala and Orlando.

Site Description

The subject site is located in Sandy Acres Subdivision. The characteristics of the site are summarized as follows:

Site Characteristics

Gross Land Area:	7.82 Acres or 340,639 SF
Fee Simple Land Area:	0.44 Acres or 19,166 SF
Easement Land Area:	7.38 Acres or 321,473 SF7.38

Flood Zone Data

Flood Map Panel/Number:	12083C0955D
Flood Map Date:	08-28-2008
Flood Zone:	X
	Flood Zone X is described as an area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level.

Adjacent Land Uses

North:	Vacant Land
South:	Vacant Land
East:	Vacant Land
West:	Vacant Land

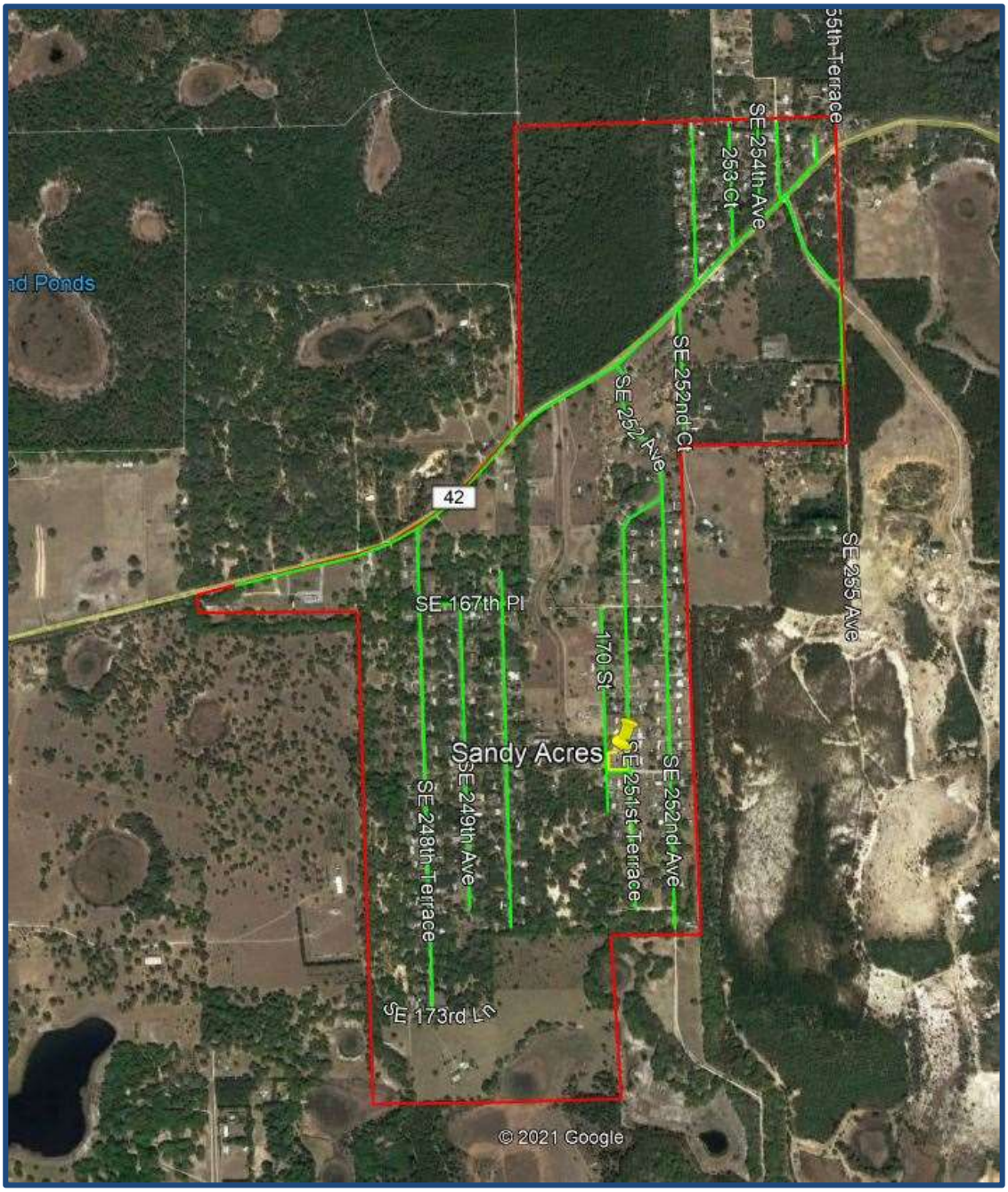
Zoning Designation

Zoning Jurisdiction:	Marion County
Zoning Classification:	R-4, A2, B4, B2, Residential Mixed Use, Commercial
Zoning Comments:	The subject is mostly residential zoning with only a few commercially zoned parcels.

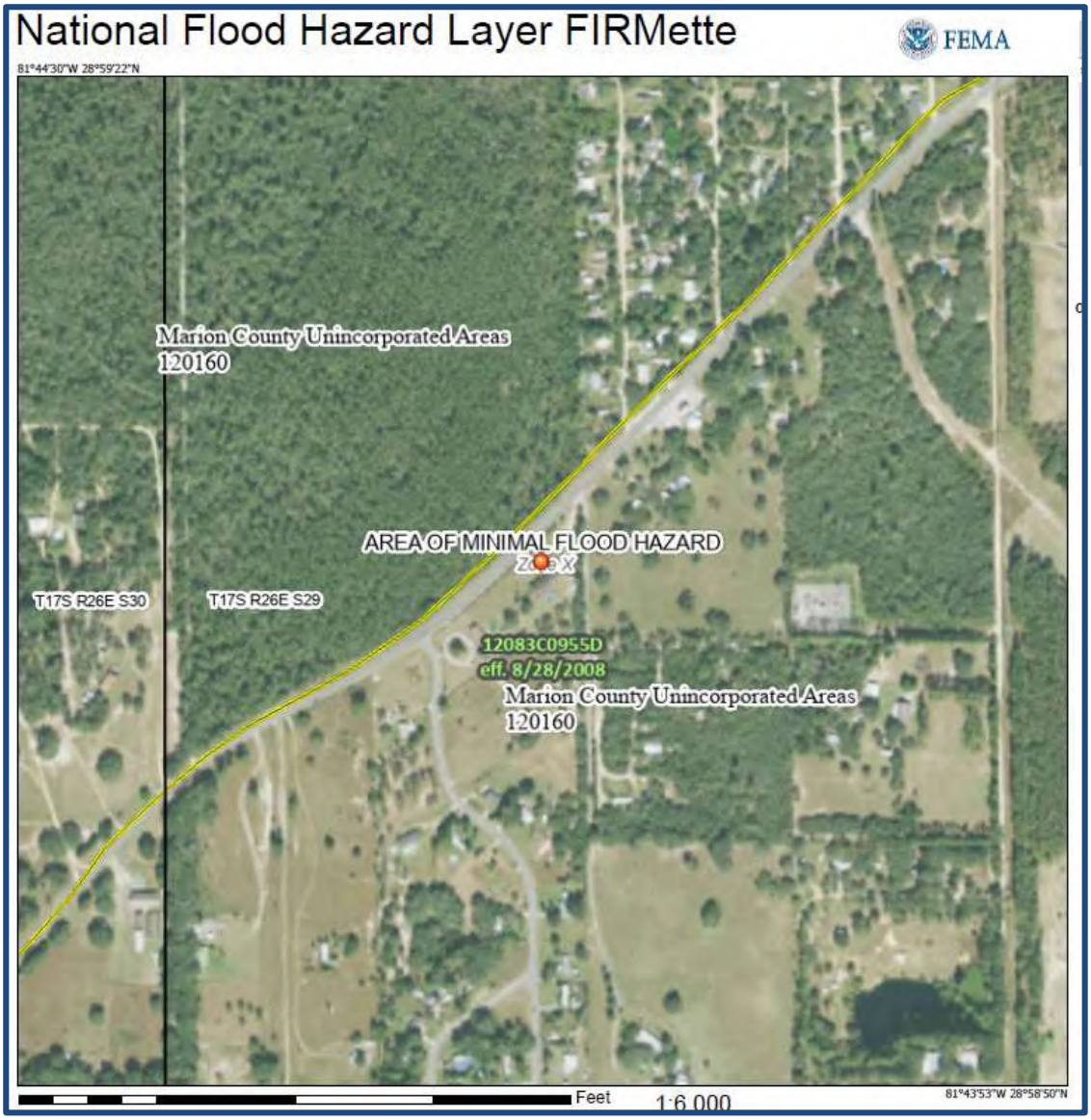
Analysis/Comments on Site

The subject property is a water distribution system consisting of 7.38 acres of easements and 0.44 acres of Fee Simple area.

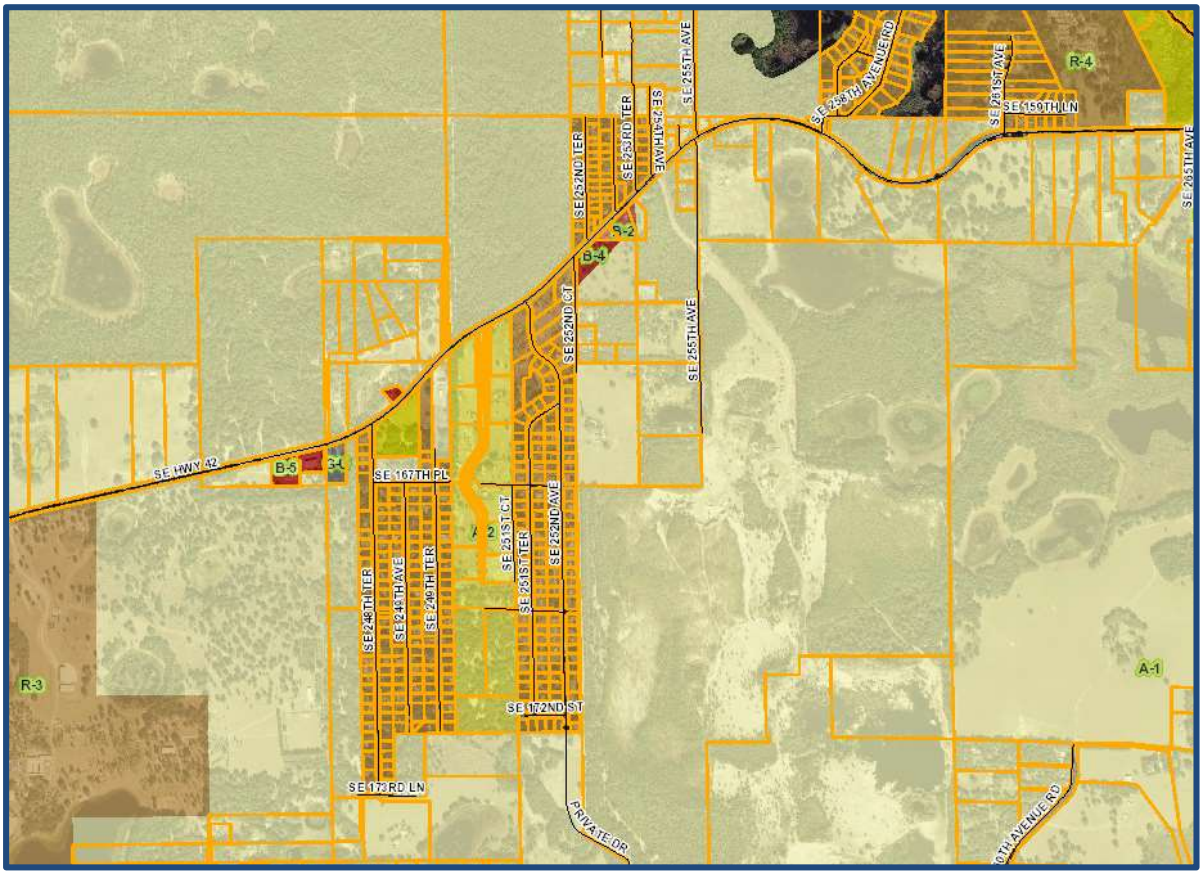
SERVICE AREA MAP



FLOOD MAP


National Flood Hazard Layer FIRMette
FEMA
81°44'30"W 28°59'22"N
Marion County Unincorporated Areas
120160
AREA OF MINIMAL FLOOD HAZARD
X
T17S R26E S30
T17S R26E S29
12083C0955D
eff. 8/28/2008
Marion County Unincorporated Areas
120160
Feet
1:6,000
81°43'53"W 28°58'50"N

ZONING MAP


R-4
SE 258TH AVENUE RD
SE 261ST AVE
SE 159TH LN
SE 261ST AVE
SE 253RD TER
SE 254TH AVE
SE 255TH AVE
SE 252ND TER
B-2
B-4
SE 252ND CT
SE 255TH AVE
SE HWY 42
B-5
SE 167TH PL
SE 251ST CT
SE 251ST TER
SE 252ND AVE
SE 248TH TER
SE 247TH AVE
SE 246TH TER
R-3
A-1
SE 172ND ST
SE 172ND LN
PRIVATE DR
TH AVENUE RD

Highest and Best Use

The Highest and Best Use of a property is the use that is legally permissible, physically possible, and financially feasible which results in the highest value. An opinion of the highest and best use results from consideration of the criteria noted above under the market conditions or likely conditions as of the effective date of value. Determination of highest and best use results from the judgment and analytical skills of the appraiser. It represents an opinion, not a fact. In appraisal practice, the concept of highest and best use represents the premise upon which value is based.

Analysis of Highest and Best Use As Though Vacant

The primary determinants of the highest and best use of the property As Though Vacant are the issues of (1) Legal permissibility, (2) Physical possibility, (3) Financial feasibility, and (4) Maximum productivity.

Legally Permissible

The subject site is zoned R-4, A2, B4, B2, Residential Mixed Use, Commercial which controls the general nature of permissible uses but is appropriate for the location and physical elements of the subject property, providing for a consistency of use with the general neighborhood. The location of the subject property is appropriate for the uses allowed, as noted previously, and a change in zoning is unlikely. There are no known easements, encroachments, covenants or other use restrictions that would unduly limit or impede development.

Physically Possible

The physical attributes allow for a number of potential uses. Elements such as size, shape, availability of utilities, known hazards (flood, environmental, etc.), and other potential influences are described in the Site Description and have been considered. There are no items of a physical nature which would adversely impact development with the legal permitted uses.

Financially Feasible

The probable use of the site for residential development conforms to the pattern of land use in the market area. A review of published yield, rental and occupancy rates suggest that there is a balanced supply and demand is sufficient to support construction costs and ensure timely absorption of additional inventory in this market. Therefore, near-term speculative development of the subject site is financially feasible.

Maximally Productive

Among the financially feasible uses, the use that results in the highest value (the maximally productive use) is the highest and best use. Considering these factors, the maximally productive use as though vacant is for residential use.

Conclusion of Highest and Best Use As Though Vacant

The conclusion of the highest and best use As Though Vacant is for residential use.

Most Probable Buyer

As of the date of value, the most probable buyer of the subject property is an owner user.

Land Valuation

Methodology

Site Value is most often estimated using the sales comparison approach. This approach develops an indication of market value by analyzing closed sales, listings, or pending sales of properties similar to the subject, focusing on the difference between the subject and the comparables using all appropriate elements of comparison. This approach is based on the principles of supply and demand, balance, externalities, and substitution, or the premise that a buyer would pay no more for a specific property than the cost of obtaining a property with the same quality, utility, and perceived benefits of ownership.

The process of developing the sales comparison approach consists of the following analyses: (1) researching and verifying transactional data, (2) selecting relevant units of comparison, (3) analyzing and adjusting the comparable sales for differences in various elements of comparison, and (4) reconciling the adjusted sales into a value indication for the subject site.

Unit of Comparison

The unit of comparison depends on land use economics and how buyers and sellers use the property. The unit of comparison in this analysis is per usable square foot.

Elements of Comparison

Elements of comparison are the characteristics or attributes of properties and transactions that cause the prices of real estate to vary. The primary elements of comparison considered in sales comparison analysis are as follows: (1) property rights conveyed, (2) financing terms, (3) conditions of sale, (4) expenditures made immediately after purchase, (5) market conditions, (6) location and (7) physical characteristics.

Comparable Sales Data

To obtain and verify comparable sales of vacant land properties, we conducted a search of public records, field surveys, interviews with knowledgeable real estate professionals in the area, and a review of our internal database.

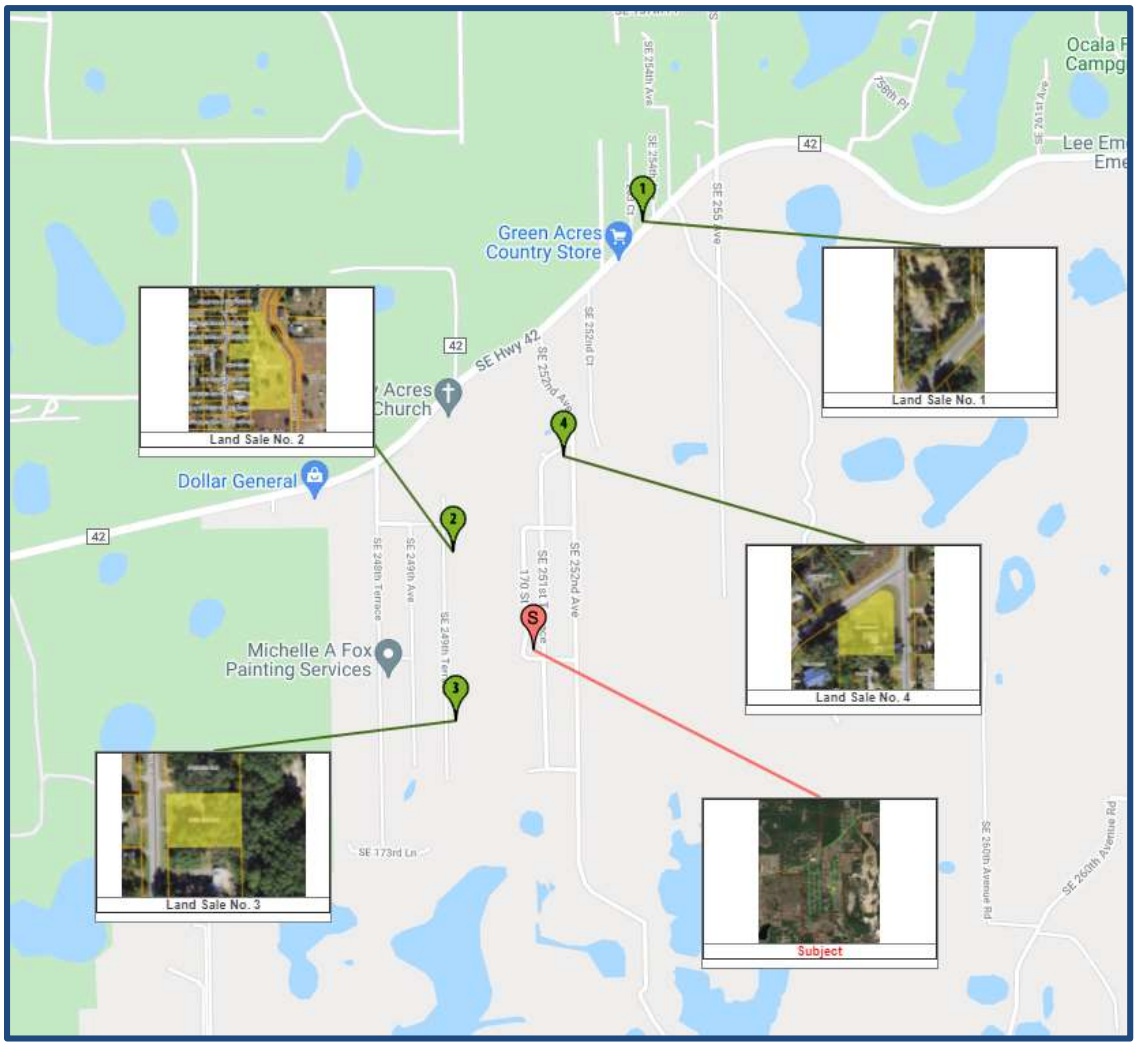
We included four sales in our analysis, as these sales were judged to be the most comparable to develop an indication of market value for the subject property.

The following is a table summarizing each sale comparable and a map illustrating the location of each in relation to the subject.

Land Sales Summary

	Sale # 1	Sale # 2	Sale # 3	Sale # 4
Sale ID	1534417	1534416	1534414	1534408
Property Name	Residential Lot	Residential Lot	Residential Lot	Residential Lot
Sale Status	Closed	Closed	Closed	Closed
Location	16151 SE 253rd Court Umatilla, Florida	16805 SE 249th Terrace Umatilla, Florida	17129 SE 249th Ter Umatilla, Florida	16600 SE 252nd Ave Umatilla, Florida
Tax ID	5110-045-000; 5110-044-00	5115-030-076	5115-031-084	51086-002-01
Sales Data				
Date of Sale	7/17/2020	9/11/2020	5/28/2019	3/21/2019
Sales Price	$35,000	$36,000	$6,500	$9,900
Price/Usable Square Foot	$0.59	$0.22	$0.47	$0.57
Grantor	William Randall Crago	Howard and Chanderwatie Roman	Curtis R. Palmer	Stacy L Hawkins
Grantee	Richard Ray and Christy Ann Strother	Beronica S Quevedo Flores	Michael Brinkman	Richard Everett and Christine Ann Strole
Recording Number	2020073065	2020096863	2019055166	2019030644
Book/Page Number	7229/250	7269/1917	6975/1329	6937/1008
Document Number				
Property Rights Conveyed	Fee Simple	Fee Simple	Fee Simple	Fee Simple
Financing	Cash to Seller	Cash to Seller	Cash to Seller	Cash to Seller
Conditions of Sale	Arm's Length	Arm's Length	Arm's Length	Arm's Length
Physical Characteristics				
Usable Land Area (Sq. Ft.)	59,242	162,043	13,939	17,424
Gross Land Area (Sq. Ft.)	59,242	162,043	13,939	17,424
Zoning	R-4	R-4 and A2	R-4	R-4
Flood Zone				
Topography				
Shape	Irregular	Irregular	Rectangular	Irregular
Utilities				
Corner Exposure				
Access/Visibility	Good/	Fair/	/	/
Primary Frontage	270 feet on SE HWY 42	95 feet on SE 249th Terrace	100 feet on SE 249th Ter	153 feet on SE 252nd Ave
Secondary Frontage	545 feet on SE 253rd Ct and SE 253rd Ter	feet on	feet on	146 feet on SE 251st Ter
Proposed Use				

COMPARABLE SALES MAP



Land Sales Comparison Analysis

When necessary, adjustments were made for differences in various elements of comparison, including property rights conveyed, financing terms, conditions of sale, expenditures made immediately after purchase, market conditions, location, and other physical characteristics. If the element in comparison is considered superior to that of the subject, we applied a negative adjustment. Conversely, a positive adjustment was applied if inferior. A summary of the elements of comparison follows.

Elements of Comparison	
Real Property Rights Conveyed	Adjustments for differences in property rights appraised.
Financing Terms	Comparable properties are adjusted for differences between a transaction's financing terms and those assumed in the valuation of the subject property - e.g. seller financing, loan assumption, non-market terms.
Conditions of Sale	Comparable properties are adjusted for differences in the motivations of either the buyer or a seller in the transaction. In the instant case, no adjustments are required.
Expenditures After Purchase	Comparable properties can be adjusted for any additional investment required to make the property salable – e. g. costs to cure deferred maintenance, costs to demolish and remove any portion of the improvements, costs to remediate environmental contamination and/or costs to occupy or stabilize the property.
Market Conditions	Comparable properties can be adjusted for changes in market conditions because of inflation, deflation, fluctuations in supply and demand, or other factors.
Location	Location adjustments may be required when the locational characteristics of a comparable are different from those of the subject.
Size	The size adjustment addresses variance in the physical size of the comparables and that of the subject, as a larger parcel typically commands a lower price per unit than a smaller parcel. As this is an estimate of the Across the Fence Value, it is assumed that the subject would be part of a lot similar in size to the comparables. The comparables varied slightly from standard lots and some adjustments were made.
Shape /Depth	This element address variance in utility due to shape and/or depth. No adjustments are warranted.
Corner Exposure	Tracts featuring corner influence typically command higher prices in the market place, as opposed to interior locations. As the subject includes both corner and interior lots, no adjustments are warranted.

Summary of Adjustments

Presented on the following page is a summary of the adjustments made to the sale comparables. As noted earlier, these quantitative adjustments were based on our market research, best judgment, and experience in the appraisal of similar properties.

LAND SALES ADJUSTMENT GRID

	Subject	Sale # 1	Sale # 2	Sale # 3	Sale # 4
Sale ID		1534417	1534416	1534414	1534408
Date of Value & Sale	May-21	July-20	September-20	May-19	March-19
Unadjusted Sales Price		$35,000	$36,000	$6,500	$9,900
Usable Square Feet	19,166	59,242	162,043	13,939	17,424
Unadjusted Sales Price per Usable Sq. Ft.		**$0.59**	**$0.22**	**$0.47**	**$0.57**
Transactional Adjustments					
Property Rights Conveyed	*Easement*	*Fee Simple*	*Fee Simple*	*Fee Simple*	*Fee Simple*
Adjusted Sales Price		$0.59	$0.22	$0.47	$0.57
Financing Terms	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*	*Cash to Seller*
Adjusted Sales Price		$0.59	$0.22	$0.47	$0.57
Conditions of Sale	*Typical*	*Arm's Length*	*Arm's Length*	*Arm's Length*	*Arm's Length*
Adjusted Sales Price		$0.59	$0.22	$0.47	$0.57
Expenditures after Sale					
Adjusted Sales Price		**$0.59**	**$0.22**	**$0.47**	**$0.57**
Market Conditions Adjustments					
Elapsed Time from Date of Value		*0.82 years*	*0.67 years*	*1.96 years*	*2.15 years*
Market Trend Through	May-21	1.6%	1.3%	3.9%	4.3%
Analyzed Sales Price		**$0.60**	**$0.23**	**$0.48**	**$0.59**
Physical Adjustments					
Location	*16968 SE 251st Ter Umatilla, Florida*	*16151 SE 253rd Court Umatilla, Florida*	*16805 SE 249th Terrace Umatilla, Florida*	*17129 SE 249th Ter Umatilla, Florida*	*16600 SE 252nd Ave Umatilla, Florida*
Adjustment		-	-	-	-
Size	*19,166 sf*	*59,242 sf*	*162,043 sf*	*13,939 sf*	*17,424 sf*
Adjustment		8.0%	15.0%	-3.0%	-1.0%
Net Physical Adjustment		8.0%	15.0%	-3.0%	-1.0%
Adjusted Sales Price per Usable Square Foot		**$0.65**	**$0.26**	**$0.47**	**$0.59**

Conclusion

From the market data available, we used four land sales in competitive market areas which were adjusted based on pertinent elements of comparison. The following table summarizes the unadjusted and adjusted unit prices:

Land Sale Statistics

Metric	Unadjusted	Analyzed	Adjusted
Min. Sales Price per Usable Square Foot	$0.22	$0.23	$0.26
Max. Sales Price per Usable Square Foot	$0.59	$0.60	$0.65
Median Sales Price per Usable Square Foot	$0.52	$0.54	$0.53
Mean Sales Price per Usable Square Foot	$0.46	$0.48	$0.49

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.50 per usable square foot. Thus, the estimated "Across the Fence Value" of the Fee Simple Interest in the subject easements is calculated to be $161,000..

Valuation of the Fee Simple Area

Based on the adjusted prices and the most comparable sale, a unit value for the subject property is near the middle of the adjusted range, or $0.50 per usable square foot. Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject Fee Simple area is calculated as follows:

Calculation of Fee Simple Value

Site Area		Unit Value		Market Value
19,166 Square Feet	X	$0.50	=	$10,000

Valuation of the Easement

The use to which the subject easements will be put to is for underground water and sewer pipes. As such, little or no surface improvements will be possible, but access across the surface will be allowed. It is my opinion, therefore, that such an easement will encumber approximately 40% of the ownership rights in the subject.

Thus, based upon the assumptions, reasoning and comparable data discussed herein, the estimated "Market Value" of the subject easements is calculated as follows:

Calculation of Easement Value

Site Area		Unit Value		Market Value of Fee		Easement Use	Indicated Value of Easement
321,473 square feet	X	$0.50 PSF	=	$161,000	X	40%	$64,000

Exposure Time and Marketing Period

Based on statistical information about days on market, escrow length, and marketing times gathered through national investor surveys, sales verification, and interviews of market participants, marketing and exposure time estimates of six months or less and six months or less, respectively, are considered reasonable and appropriate for the subject property.

General Assumptions and Limiting Conditions

This appraisal is subject to the following general assumptions and limiting conditions:

1. The legal description – if furnished to us – is assumed to be correct.
2. No responsibility is assumed for legal matters, questions of survey or title, soil or subsoil conditions, engineering, availability or capacity of utilities, or other similar technical matters. The appraisal does not constitute a survey of the property appraised. All existing liens and encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management unless otherwise noted.
3. Unless otherwise noted, the appraisal will value the property as though free of contamination. Valbridge Property Advisors | New Orleans will conduct no hazardous materials or contamination inspection of any kind. It is recommended that the client hire an expert if the presence of hazardous materials or contamination poses any concern.
4. The stamps and/or consideration placed on deeds used to indicate sales are in correct relationship to the actual dollar amount of the transaction.
5. Unless otherwise noted, it is assumed there are no encroachments, zoning violations or restrictions existing in the subject property.
6. The appraiser is not required to give testimony or attendance in court by reason of this appraisal, unless previous arrangements have been made.
7. Unless expressly specified in the engagement letter, the fee for this appraisal does not include the attendance or giving of testimony by Appraiser at any court, regulatory or other proceedings, or any conferences or other work in preparation for such proceeding. If any partner or employee of Valbridge Property Advisors | New Orleans is asked or required to appear and/or testify at any deposition, trial, or other proceeding about the preparation, conclusions or any other aspect of this assignment, client shall compensate Appraiser for the time spent by the partner or employee in appearing and/or testifying and in preparing to testify according to the Appraiser's then current hourly rate plus reimbursement of expenses.
8. The values for land and/or improvements, as contained in this report, are constituent parts of the total value reported and neither is (or are) to be used in making a summation appraisal of a combination of values created by another appraiser. Either is invalidated if so used.
9. The dates of value to which the opinions expressed in this report apply are set forth in this report. We assume no responsibility for economic or physical factors occurring at some point at a later date, which may affect the opinions stated herein. The forecasts, projections, or operating estimates contained herein are based on current market conditions and anticipated short-term supply and demand factors and are subject to change with future conditions. Appraiser is not responsible for determining whether the date of value requested by Client is appropriate for Client's intended use.
10. The sketches, maps, plats and exhibits in this report are included to assist the reader in visualizing the property. The appraiser has made no survey of the property and assumed no responsibility in connection with such matters.
11. The information, estimates and opinions, which were obtained from sources outside of this office, are considered reliable. However, no liability for them can be assumed by the appraiser.

12. Possession of this report, or a copy thereof, does not carry with it the right of publication. Neither all, nor any part of the content of the report, or copy thereof (including conclusions as to property value, the identity of the appraisers, professional designations, reference to any professional appraisal organization or the firm with which the appraisers are connected), shall be disseminated to the public through advertising, public relations, news, sales, or other media without prior written consent and approval.
13. No claim is intended to be expressed for matters of expertise that would require specialized investigation or knowledge beyond that ordinarily employed by real estate appraisers. We claim no expertise in areas such as, but not limited to, legal, survey, structural, environmental, pest control, mechanical, etc.
14. This appraisal was prepared for the sole and exclusive use of the client for the function outlined herein. Any party who is not the client or intended user identified in the appraisal or engagement letter is not entitled to rely upon the contents of the appraisal without express written consent of Valbridge Property Advisors | New Orleans and Client. The Client shall not include partners, affiliates, or relatives of the party addressed herein. The appraiser assumes no obligation, liability or accountability to any third party.
15. Distribution of this report is at the sole discretion of the client, but third-parties not listed as an intended user on the face of the appraisal or the engagement letter may not rely upon the contents of the appraisal. In no event shall client give a third-party a partial copy of the appraisal report. We will make no distribution of the report without the specific direction of the client.
16. This appraisal shall be used only for the function outlined herein, unless expressly authorized by Valbridge Property Advisors | New Orleans.
17. This appraisal shall be considered in its entirety. No part thereof shall be used separately or out of context.
18. Unless otherwise noted in the body of this report, this appraisal assumes that the subject property does not fall within the areas where mandatory flood insurance is effective. Unless otherwise noted, we have not completed nor have we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property. Because the appraiser is not a surveyor, he or she makes no guarantees, express or implied, regarding this determination.
19. The flood maps are not site specific. We are not qualified to confirm the location of the subject property in relation to flood hazard areas based on the FEMA Flood Insurance Rate Maps or other surveying techniques. It is recommended that the client obtain a confirmation of the subject property's flood zone classification from a licensed surveyor.
20. If the appraisal is for mortgage loan purposes 1) we assume satisfactory completion of improvements if construction is not complete, 2) no consideration has been given for rent loss during rent-up unless noted in the body of this report, and 3) occupancy at levels consistent with our "Income and Expense Projection" are anticipated.
21. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures which would render it more or less valuable. No responsibility is assumed for such conditions or for engineering which may be required to discover them.

22. Our inspection included an observation of the land and improvements thereon only. It was not possible to observe conditions beneath the soil or hidden structural components within the improvements. We inspected the buildings involved, and reported damage (if any) by termites, dry rot, wet rot, or other infestations as a matter of information, and no guarantee of the amount or degree of damage (if any) is implied. Condition of heating, cooling, ventilation, electrical and plumbing equipment is considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. Should the client have concerns in these areas, it is the client's responsibility to order the appropriate inspections. The appraiser does not have the skill or expertise to make such inspections and assumes no responsibility for these items.
23. This appraisal does not guarantee compliance with building code and life safety code requirements of the local jurisdiction. It is assumed that all required licenses, consents, certificates of occupancy or other legislative or administrative authority from any local, state or national governmental or private entity or organization have been or can be obtained or renewed for any use on which the value conclusion contained in this report is based unless specifically stated to the contrary.
24. When possible, we have relied upon building measurements provided by the client, owner, or associated agents of these parties. In the absence of a detailed rent roll, reliable public records, or "as-built" plans provided to us, we have relied upon our own measurements of the subject improvements. We follow typical appraisal industry methods; however, we recognize that some factors may limit our ability to obtain accurate measurements including, but not limited to, property access on the day of inspection, basements, fenced/gated areas, grade elevations, greenery/shrubbery, uneven surfaces, multiple story structures, obtuse or acute wall angles, immobile obstructions, etc. Professional building area measurements of the quality, level of detail, or accuracy of professional measurement services are beyond the scope of this appraisal assignment.
25. We have attempted to reconcile sources of data discovered or provided during the appraisal process, including assessment department data. Ultimately, the measurements that are deemed by us to be the most accurate and/or reliable are used within this report. While the measurements and any accompanying sketches are considered to be reasonably accurate and reliable, we cannot guarantee their accuracy. Should the client desire more precise measurement, they are urged to retain the measurement services of a qualified professional (space planner, architect or building engineer) as an alternative source. If this alternative measurement source reflects or reveals substantial differences with the measurements used within the report, upon request of the client, the appraiser will submit a revised report for an additional fee.
26. In the absence of being provided with a detailed land survey, we have used assessment department data to ascertain the physical dimensions and acreage of the property. Should a survey prove this information to be inaccurate, upon request of the client, the appraiser will submit a revised report for an additional fee.
27. If only preliminary plans and specifications were available for use in the preparation of this appraisal, and a review of the final plans and specifications reveals substantial differences upon request of the client the appraiser will submit a revised report for an additional fee.

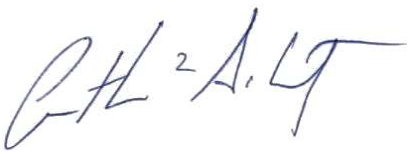
28. Unless otherwise stated in this report, the value conclusion is predicated on the assumption that the property is free of contamination, environmental impairment or hazardous materials. Unless otherwise stated, the existence of hazardous material was not observed by the appraiser and the appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation or other potentially hazardous materials may affect the value of the property. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required for discovery. The client is urged to retain an expert in this field, if desired.
29. The Americans with Disabilities Act ("ADA") became effective January 26, 1992. We have not made a specific compliance survey of the property to determine if it is in conformity with the various requirements of the ADA. It is possible that a compliance survey of the property, together with an analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this could have a negative effect on the value of the property. Since we have no direct evidence relating to this issue, we did not consider possible noncompliance with the requirements of ADA in developing an opinion of value.
30. This appraisal applies to the land and building improvements only. The value of trade fixtures, furnishings, and other equipment, or subsurface rights (minerals, gas, and oil) were not considered in this appraisal unless specifically stated to the contrary.
31. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated, unless specifically stated to the contrary.
32. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute prediction of future operating results. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance.
33. Any estimate of insurable value, if included within the scope of work and presented herein, is based upon figures developed consistent with industry practices. However, actual local and regional construction costs may vary significantly from our estimate and individual insurance policies and underwriters have varied specifications, exclusions, and non-insurable items. As such, we strongly recommend that the Client obtain estimates from professionals experienced in establishing insurance coverage. This analysis should not be relied upon to determine insurance coverage and we make no warranties regarding the accuracy of this estimate.
34. The data gathered in the course of this assignment (except data furnished by the Client) shall remain the property of the Appraiser. The appraiser will not violate the confidential nature of the appraiser-client relationship by improperly disclosing any confidential information furnished to the appraiser. Notwithstanding the foregoing, the Appraiser is authorized by the client to disclose all or any portion of the appraisal and related appraisal data to appropriate representatives of the Appraisal Institute if such disclosure is required to enable the appraiser to comply with the Bylaws and Regulations of such Institute now or hereafter in effect.

35. You and Valbridge Property Advisors | New Orleans both agree that any dispute over matters in excess of $5,000 will be submitted for resolution by arbitration. This includes fee disputes and any claim of malpractice. The arbitrator shall be mutually selected. If Valbridge Property Advisors | New Orleans and the client cannot agree on the arbitrator, the presiding head of the Local County Mediation & Arbitration panel shall select the arbitrator. Such arbitration shall be binding and final. In agreeing to arbitration, we both acknowledge that, by agreeing to binding arbitration, each of us is giving up the right to have the dispute decided in a court of law before a judge or jury. In the event that the client, or any other party, makes a claim against Valbridge Property Advisors | New Orleans or any of its employees in connections with or in any way relating to this assignment, the maximum damages recoverable by such claimant shall be the amount actually received by Valbridge Property Advisors | New Orleans for this assignment, and under no circumstances shall any claim for consequential damages be made.
36. Valbridge Property Advisors | New Orleans shall have no obligation, liability, or accountability to any third party. Any party who is not the "client" or intended user identified on the face of the appraisal or in the engagement letter is not entitled to rely upon the contents of the appraisal without the express written consent of Valbridge Property Advisors | New Orleans. "Client" shall not include partners, affiliates, or relatives of the party named in the engagement letter. Client shall hold Valbridge Property Advisors | New Orleans and its employees harmless in the event of any lawsuit brought by any third party, lender, partner, or part-owner in any form of ownership or any other party as a result of this assignment. The client also agrees that in case of lawsuit arising from or in any way involving these appraisal services, client will hold Valbridge Property Advisors | New Orleans harmless from and against any liability, loss, cost, or expense incurred or suffered by Valbridge Property Advisors | New Orleans in such action, regardless of its outcome.
37. The Valbridge Property Advisors office responsible for the preparation of this report is independently owned and operated by VPA of South Louisiana, Inc.. Neither Valbridge Property Advisors, Inc., nor any of its affiliates has been engaged to provide this report. Valbridge Property Advisors, Inc. does not provide valuation services, and has taken no part in the preparation of this report.
38. If any claim is filed against any of Valbridge Property Advisors, Inc., a Florida Corporation, its affiliates, officers or employees, or the firm providing this report, in connection with, or in any way arising out of, or relating to, this report, or the engagement of the firm providing this report, then (1) under no circumstances shall such claimant be entitled to consequential, special or other damages, except only for direct compensatory damages, and (2) the maximum amount of such compensatory damages recoverable by such claimant shall be the amount actually received by the firm engaged to provide this report.
39. This report and any associated work files may be subject to evaluation by Valbridge Property Advisors, Inc., or its affiliates, for quality control purposes.
40. Acceptance and/or use of this appraisal report constitutes acceptance of the foregoing general assumptions and limiting conditions.
41. The global outbreak of a "novel coronavirus" (known as COVID-19) was officially declared a pandemic by the World Health Organization (WHO). It is currently unknown what direct, or indirect, effect, if any, this event may have on the national economy, the local economy or the market in which the subject property is located. The reader is cautioned, and reminded that the conclusions presented in this appraisal report apply only as of the effective date(s) indicated. The appraiser makes no representation as to the effect on the subject property of this event, or any event, subsequent to the effective date of the appraisal.

Certification – Arthur L. Schwertz

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. The undersigned performed services regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
9. Arthur L. Schwertz did not personally inspected the subject property.
10. R. Carter Higdon provided significant real property appraisal assistance to the person signing this certification.
11. The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
12. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
13. As of the date of this report, the undersigned has completed the continuing education program for Designated Members of the Appraisal Institute.



Arthur L. Schwertz, MAI
Senior Managing Director
Florida Certified General
Real Estate Appraiser RZ4249

Addenda

Glossary

Qualifications

- Arthur L. Schwertz, MAI - Senior Managing Director

Information on Valbridge Property Advisors

Office Locations

Glossary

Definitions are taken from The Dictionary of Real Estate Appraisal, 6th Edition (Dictionary), the Uniform Standards of Professional Appraisal Practice (USPAP), and Building Owners and Managers Association International (BOMA).

Absolute Net Lease

A lease in which the tenant pays all expenses including structural maintenance, building reserves, and management; often a long-term lease to a credit tenant. (Dictionary)

Amortization

The process of retiring a debt or recovering a capital investment, typically through scheduled, systematic repayment of the principal; a program of periodic contributions to a sinking fund or debt retirement fund. (Dictionary)

As Is Market Value

The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date. (Dictionary)

Base Rent

The minimum rent stipulated in a lease. (Dictionary)

Base Year

The year on which escalation clauses in a lease are based. (Dictionary)

Building Common Area

In office buildings, the areas of the building that provide services to building tenants but which are not included in the office area or store area of any specific tenant. These areas may include, but shall not be limited to, main and auxiliary lobbies, atrium spaces at the level of the finished floor, concierge areas or security desks, conference rooms, lounges or vending areas, food service facilities, health or fitness centers, daycare facilities, locker or shower facilities, mail rooms, fire control rooms, fully enclosed courtyards outside the exterior walls, and building core and service areas such as fully enclosed mechanical or equipment rooms. Specifically excluded from building common area are floor common areas, parking space, portions of loading docks outside the building line, and major vertical penetrations. (BOMA)

Building Rentable Area

The sum of all floor rentable areas. Floor rentable area is the result of subtracting from the gross measured area of a floor the major vertical penetrations on that same floor. It is generally fixed for the life of the building and is rarely affected by changes in corridor size or configuration. (BOMA)

Bulk Value

The value of multiple units, subdivided plots, or properties in a portfolio as though sold together in a single transaction.

Certificate of Occupancy (COO)

A formal written acknowledgment by an appropriate unit of local government that a new construction or renovation project is at the stage where it meets applicable health and safety codes and is ready for commercial or residential occupancy. (Dictionary)

Common Area Maintenance (CAM)

The expense of operating and maintaining common areas; may or may not include management charges and usually does not include capital expenditures on tenant improvements or other improvements to the property. (Dictionary)

The amount of money charged to tenants for their shares of maintaining a [shopping] center's common area. The charge that a tenant pays for shared services and facilities such as electricity, security, and maintenance of parking lots. Items charged to common area maintenance may include cleaning services, parking lot sweeping and maintenance, snow removal, security and upkeep. (ICSC – International Council of Shopping Centers, 4th Ed.)

Condominium

A multiunit structure, or a unit within such a structure, with a condominium form of ownership. (Dictionary)

Conservation Easement

An interest in real estate restricting future land use to preservation, conservation, wildlife habitat, or some combination of those uses. A conservation easement may permit farming, timber harvesting, or other uses of a rural nature as well as some types of conservation-oriented development to continue, subject to the easement. (Dictionary)

Contributory Value

A type of value that reflects the amount a property or component of a property contributes to the value of another asset or to the property as a whole.

The change in the value of a property as a whole, whether positive or negative, resulting from the addition or deletion of a property component. Also called deprival value in some countries. (Dictionary)

Debt Coverage Ratio (DCR)

The ratio of net operating income to annual debt service (DCR = NOI/Im), which measures the relative ability of a property to meet its debt service out of net operating income; also called *debt service coverage ratio (DSCR)*. A larger *DCR* typically indicates a greater ability for a property to withstand a reduction of income, providing an improved safety margin for a lender. (Dictionary)

Deed Restriction

A provision written into a deed that limits the use of land. Deed restrictions usually remain in effect when title passes to subsequent owners. (Dictionary)

Depreciation

In appraisal, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date.

In accounting, an allocation of the original cost of an asset, amortizing the cost over the asset's life; calculated using a variety of standard techniques. (Dictionary)

Disposition Value

The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a specified time, which is shorter than the typical exposure time for such a property in that market.
- The property is subjected to market conditions prevailing as of the date of valuation;
- Both the buyer and seller are acting prudently and knowledgeably;
- The seller is under compulsion to sell;
- The buyer is typically motivated;
- Both parties are acting in what they consider to be their best interests;
- An adequate marketing effort will be made during the exposure time;
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Double Net (Net Net) Lease

An alternative term for a type of net lease. In some markets, a net net lease is defined as a lease in which the tenant is responsible to pay both property taxes and premiums for insuring the building(s). (Valbridge)

(The market definition of a double net lease varies depending on the market)

Easement

The right to use another's land for a stated purpose. (Dictionary)

EIFS

Exterior Insulation Finishing System. This is a type of exterior wall cladding system. Sometimes referred to as dry-vit.

Effective Date

The date on which the appraisal or review opinion applies. (SVP)

In a lease document, the date upon which the lease goes into effect. (Dictionary)

Effective Gross Income (EGI)

The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income. (Dictionary)

Effective Rent

Total base rent, or minimum rent stipulated in a lease, over the specified lease term minus rent concessions; the rent that is effectively paid by a tenant net of financial concessions provided by a landlord. (TIs). (Dictionary)

EPDM

Ethylene Propylene Diene Monomer Rubber. A type of synthetic rubber typically used for roof coverings. (Dictionary)

Escalation Clause

A clause in an agreement that provides for the adjustment of a price or rent based on some event or index. e.g., a provision to increase rent if operating expenses increase; also called *escalator clause, expense recovery clause or stop clause*. (Dictionary)

Estoppel Certificate

A signed statement by a party (such as a tenant or a mortgagee) certifying, for another's benefit, that certain facts are correct, such as that a lease exists, that there are no defaults, and that rent is paid to a certain date. (Black's) In real estate, a buyer of rental property typically requests estoppel certificates from existing tenants. Sometimes referred to as an *estoppel letter*. (Dictionary)

Excess Land

Land that is not needed to serve or support the existing use. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and is valued separately. (Dictionary)

Excess Rent
The amount by which contract rent exceeds market rent at the time of the appraisal; created by a lease favorable to the landlord (lessor) and may reflect unusual management, unknowledgeable or unusually motivated parties, a lease execution in an earlier, stronger rental market, or an agreement of the parties. (Dictionary)

Expense Stop
A clause in a lease that limits the landlord's expense obligation, which results in the lessee paying operating expenses above a stated level or amount. (Dictionary)

Exposure Time
The time a property remains on the market.
The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal;

Comment: Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market. (Dictionary)

Extraordinary Assumption
An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

Comment: Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis. (USPAP)

Fee Simple Estate
Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat. (Dictionary)

Floor Common Area
In an office building, the areas on a floor such as washrooms, janitorial closets, electrical rooms, telephone rooms, mechanical rooms, elevator lobbies, and public corridors which are available primarily for the use of tenants on that floor. (BOMA)

Full Service (Gross) Lease
A lease in which the landlord receives stipulated rent and is obligated to pay all of the property's operating and fixed expenses; also called a *full service lease*. (Dictionary)

Furniture, Fixtures, and Equipment (FF&E)
Business trade fixtures and personal property, exclusive of inventory. (Dictionary)

Going-Concern Value
An outdated label for the market value of all the tangible and intangible assets of an established and operating business with an indefinite life, as if sold in aggregate; more accurately termed the *market value of the going concern* or *market value of the total assets of the business.* (Dictionary)

Gross Building Area (GBA)
Total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls of the above-grade area. This includes mezzanines and basements if and when typically included in the market area of the type of property involved.

Gross leasable area plus all common areas.
For residential space, the total area of all floor levels measured from the exterior of the walls and including the superstructure and substructure basement; typically does not include garage space. (Dictionary)

Gross Measured Area
The total area of a building enclosed by the dominant portion (the portion of the inside finished surface of the permanent outer building wall which is 50 percent or more of the vertical floor-to-ceiling dimension, at the given point being measured as one moves horizontally along the wall), excluding parking areas and loading docks (or portions of same) outside the building line. It is generally not used for leasing purposes and is calculated on a floor by floor basis. (BOMA)

Gross Up Method
A method of calculating variable operating expenses in income-producing properties when less than 100% occupancy is assumed. Expenses reimbursed based on the amount of occupied space, rather than on the total building area, are described as "grossed up." (Dictionary)

Gross Retail Sellout
The sum of the separate and distinct market value opinions for each of the units in a condominium, subdivision development, or portfolio of properties, as of the date of valuation. The aggregate of retail values does not represent the value of all the units as though sold together in a single transaction; it is simply the total of the individual market value conclusions. Also called the *aggregate of the retail values, aggregate retail selling price or sum of the retail values.* (Dictionary)

Ground Lease
A lease that grants the right to use and occupy land. Improvements made by the ground lessee typically revert to the ground lessor at the end of the lease term. (Dictionary)

Ground Rent
The rent paid for the right to use and occupy land according to the terms of a ground lease; the portion of the total rent allocated to the underlying land. (Dictionary)

HVAC
Heating, ventilation, air conditioning (HVAC) system. A unit that regulates the temperature and distribution of heat and fresh air throughout a building. (Dictionary)

Highest and Best Use
The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

The use of an asset that maximizes its potential and that is possible, legally permissible, and financially feasible. The highest and best use may be for continuation of an asset's existing use of for some alternative use. This is determined by the use that a market participant would have in mind for the asset when formulating the price that it would be willing to bid. (IVS)

[The] highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future. (Uniform Appraisal Standards for Federal Land Acquisitions) (Dictionary)

Hypothetical Condition
A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comment: Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP)

Insurable Value
A type of value for insurance purposes. (Typically this includes replacement cost less basement excavation, foundation, underground piping and architect's fees). (Dictionary)

Investment Value
The value of a property to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market. (Dictionary)

Just Compensation
In condemnation, the amount of loss for which a property owner is compensated when his or her property is taken. Just compensation should put the owner in as good a position pecuniarily as he or she would have been if the property had not been taken. (Dictionary)

Leased Fee Interest
The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversionary right when the lease expires. (Dictionary)

Leasehold Interest
The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease. (Dictionary)

See also Positive Leasehold and Negative Leasehold.

Lessee (Tenant)
One who has the right to occupancy and use of the property of another for a period of time according to a lease agreement. (Dictionary)

Lessor (Landlord)
One who conveys the rights of occupancy and use to others under a lease agreement. (Dictionary)

Liquidation Value
The most probable price that a specified interest in property should bring under the following conditions:

- Consummation of a sale within a short time period.
- The property is subjected to market conditions prevailing as of the date of valuation.
- Both the buyer and seller are acting prudently and knowledgeably.
- The seller is under extreme compulsion to sell.
- The buyer is typically motivated.
- Both parties are acting in what they consider to be their best interests.
- A normal marketing effort is not possible due to the brief exposure time.
- Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.

The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Loan to Value Ratio (LTV)

The ratio between a mortgage loan and the value of the property pledged as security, usually expressed as a percentage. (Dictionary)

Major Vertical Penetrations

Stairs, elevator shafts, flues, pipe shafts, vertical ducts, and the like, and their enclosing walls. Atria, lightwells and similar penetrations above the finished floor are included in this definition. Not included, however, are vertical penetrations built for the private use of a tenant occupying office areas on more than one floor. Structural columns, openings for vertical electric cable or telephone distribution, and openings for plumbing lines are not considered to be major vertical penetrations. (BOMA)

Market Rent

The most probable rent that a property should bring in a competitive and open market under all the conditions requisite to a fair lease transaction, the lessee and the lessor each acting prudently and knowledgeably, and assuming the rent is not affected by undue stimulus. Implicit in this definition is the execution of a lease as of a specified date under conditions whereby:
Lessee and lessor are typically motivated;
Both parties are well informed or well advised, and acting in what they consider their best interests;
Payment is made in terms of cash or in terms of financial arrangements comparable thereto; and
The rent reflects specified terms and conditions, such as permitted uses, use restrictions, expense obligations, duration, concessions, rental adjustments and revaluations, renewal and purchase options, and tenant improvements (TIs). (Appraisal Institute)

Market Value

The most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. (Dictionary)

Marketing Time

An opinion of the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of an appraisal. (Advisory Opinion 7 of the Appraisal Standards Board of the Appraisal Foundation)

Master Lease

A lease in which the fee owner leases a part or the entire property to a single entity (the master lease) in return for a stipulated rent. The master lessee then leases the property to multiple tenants. (Dictionary)

Modified Gross Lease

A lease in which the landlord receives stipulated rent and is obligated to pay some, but not all, of the property's operating and fixed expenses. Since assignment of expenses varies among modified gross leases, expense responsibility must always be specified. In some markets, a modified gross lease may be called a *double net lease, net net lease, partial net lease, or semi-gross le*ase. (Dictionary)

Negative Leasehold

A lease situation in which the market rent is less than the contract rent. (Dictionary)

Operating Expense Ratio

The ratio of total operating expenses to effective gross income (TOE/EGI); the complement of the net income ratio, i.e., OER = 1 – NIR (Dictionary)

Option

A legal contract, typically purchased for a stated consideration, that permits but does not require the holder of the option (known as the *optionee*) to buy, sell, or lease real estate for a stipulated period of time in accordance with specified terms; a unilateral right to exercise a privilege. (Dictionary)

Partial Interest

Divided or undivided rights in real estate that represent less than the whole, i.e., a fractional interest such as a tenancy in common, easement, or life interest. (Dictionary)

Pass Through

A tenant's portion of operating expenses that may be composed of common area maintenance (CAM), real property taxes, property insurance, and any other expenses determined in the lease agreement to be paid by the tenant. (Dictionary)

Percentage Lease
A lease in which the rent or some portion of the rent represents a specified percentage of the volume of business, productivity, or use achieved by the tenant. (Dictionary)

Positive Leasehold
A lease situation in which the market rent is greater than the contract rent. (Dictionary)

Potential Gross Income (PGI)
The total income attributable to property at full occupancy before vacancy and operating expenses are deducted. (Dictionary)

Prospective Future Value Upon Completion
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report. … The prospective market value –as completed- reflects the property's market value as of the time that development is expected to be complete. (Dictionary)

Prospective Future Value Upon Stabilization
A prospective market value may be appropriate for the valuation of a property interest related to a credit decision for a proposed development or renovation project. According to USPAP, an appraisal with a prospective market value reflects an effective date that is subsequent to the date of the appraisal report …The prospective market value – as stabilized – reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. For an income-producing property, stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties. (Dictionary)

Replacement Cost
The estimated cost to construct, at current prices as of a specific date, a substitute for a building or other improvements, using modern materials and current standards, design, and layout. (Dictionary)

Reproduction Cost
The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all of the deficiencies, superadequacies, and obsolescence of the subject building. (Dictionary)

Retrospective Value Opinion
A value opinion effective as of a specified historical date. The term *retrospective* does not define a type of value. Instead, it identifies a value opinion as being effective at some specific prior date. Value as of a historical date is frequently sought in connection with property tax appeals, damage models, lease renegotiation, deficiency judgments, estate tax, and condemnation. Inclusion of the type of value with this term is appropriate, e.g., "retrospective market value opinion." (Dictionary)

Sandwich Leasehold Estate
The interest held by the sandwich leaseholder when the property is subleased to another party; a type of leasehold estate. (Dictionary)

Sublease
An agreement in which the lessee in a prior lease conveys the right of use and occupancy of a property to another, the sublessee, for a specific period of time, which may or may not be coterminous with the underlying lease term. (Dictionary)

Subordination
A contractual arrangement in which a party with a claim to certain assets agrees to make his or her claim junior, or subordinate, to the claims of another party. (Dictionary)

Surplus Land
Land that is not currently needed to support the existing use but cannot be separated from the property and sold off for another use. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel. (Dictionary)

TPO
Thermoplastic polyolefin, a resilient synthetic roof covering.

Triple Net (Net Net Net) Lease
An alternative term for a type of net lease. In some markets, a net net net lease is defined as a lease in which the tenant assumes all expenses (fixed and variable) of operating a property except that the landlord is responsible for structural maintenance, building reserves, and management; also called *NNN lease, net net net lease, or fully net lease*. (Dictionary)

(The market definition of a triple net lease varies; in some cases tenants pay for items such as roof repairs, parking lot repairs, and other similar items.)

Usable Area
The measured area of an office area, store area, or building common area on a floor. The total of all the usable areas for a floor shall equal floor usable area of that same floor. (BOMA)

Value-in-Use

The value of a property assuming a specific use, which may or may not be the property's highest and best use on the effective date of the appraisal. Value in use may or may not be equal to market value but is different conceptually. (Dictionary)

VTAB

Value of the Total Assets of a Business. The value of a going concern (i.e. the business enterprise). (Dictionary)

Qualifications of Arthur L. Schwertz, MAI

Senior Managing Director
Valbridge Property Advisors | South Louisiana

Independent Valuations for a Variable World

State Certifications

Certified General in:
Louisiana
Mississippi
Alabama
Texas
Virginia
California
Arizona
Kentucky
Tennessee
North Carolina
Maryland

Education

Bachelor of Arts
History
Louisiana State University

Contact Details

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Suite 200
New Orleans, LA 70123

www.valbridge.com/south-louisiana

Membership/Affiliations

Member: Appraisal Institute – MAI Designation
Louisiana Chapter President, 2017
Member: Celebration Church Administrative Team (Corporate Secretary)

Appraisal Institute & Related Courses

Continuing education courses taken through the Appraisal Institute and other real estate organizations.

Publications, Seminars Presented, etc.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Austin, Texas, 2019.

"Contract or Effective Rent: Finding the Real Rent", Appraisal Institute, Baton Rouge, Louisiana, 2016.

"Appraising Commercial and Complex Properties in an Historic Area", Webinar for the Appraisal Institute, 2015.

"The Unique Appraisal: Case Studies in Appraising Special Purpose Properties", AI Connect 2014 (Appraisal Institute's National Meeting), Austin, Texas, 2014.

Schwertz, Arthur L. 2014. "History Lesson", *Valuation Magazine 2nd Quarter, 2014,* 12 – 13.

Huso, Deborah R. 2013. "On the Waterfront", *Valuation Magazine 2nd Quarter, 2013,* 22 – 27. (Contributor)

Experience

Senior Managing Director
Valbridge Property Advisors | South Louisiana (2013-Present)

Vice-President
Argote, Derbes, Graham, Shuffield & Tatje, Inc. (1992-2013)

Appraisal/valuation and consulting assignments include (but not limited to): Single-family, condominium, apartments, vacant land, funeral homes, amphitheaters, live performance theaters, office buildings, hospitals, nursing homes, specialized healthcare, hotels/motels, service stations, retail, industrial plants, warehouses, fractional interest valuations, contaminated properties, special purpose properties (port facilities, nuclear reactor simulator facility, shipyards, etc.), senior residential and healthcare facilities, feasibility studies, market studies, condemnation, construction defects, litigation support, mediations, and review appraisals.

Mr. Schwertz has provided valuation services in a wide variety of complex civil litigation including real estate, land use cases, condemnation, estate matters, property taxation, construction defect, and bankruptcy/creditors matters.

Qualified as an expert witness in Terrebonne, Jefferson, Orleans, and St. Tammany Parishes, Dallas County, Texas, Indiana Board of Tax Review, United States Court of Federal Claims, United States Court for the Eastern District of Louisiana and the United States Bankruptcy Court for the Middle District of Louisiana.

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Designations, Associations and Professional Awards

- Louisiana Certified General Real Estate Appraiser; License No. G-0932
- Mississippi Certified General Real Estate Appraiser; License No. GA-633
- Alabama Certified General Real Estate Appraiser; License No. G00937
- Texas Certified General Real Estate Appraiser, License No. TX-1337393-G
- California Certified General Real Estate Appraiser, License No. 3005682
- Virginia Certified General Real Estate Appraiser, License No. 400101572
- Arizona Certified General Real Estate Appraiser, License No. 1003038
- North Carolina Certified General Real Estate Appraiser, License No. A8506
- Tennessee Certified General Real Estate Appraiser, License No. 5810
- Kentucky Certified General Real Estate Appraiser, License No. 5470
- Maryland Certified General Real Estate Appraiser, License No. 40034070
- Member of the Appraisal Institute, MAI Certificate No. 12678
- Instructor of the Appraisal Institute
- Secretary, Louisiana Chapter of the Appraisal Institute, 2014
- Treasurer, Louisiana Chapter of the Appraisal Institute, 2015
- Vice-President, Louisiana Chapter of the Appraisal Institute, 2016
- President, Louisiana Chapter of the Appraisal Institute, 2017

Civic Organizations

1982	Eagle Scout, Boy Scouts of America
1983	Vigil Honor Member, Order of the Arrow, Boy Scouts of America
1999 – 2001	Board of Directors, Berean Bible Church, New Orleans, Louisiana
2000 – 2001	Treasurer, Berean Bible Church, New Orleans, Louisiana
2008 – 2010	School Board Chairman, Crescent City Christian School, Metairie, Louisiana.
2008 – Present	Board of Directors, Celebration Church, Metairie, Louisiana
2010 – Present	Corporate Secretary, Celebration Church, Metairie, Louisiana

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Expert Witness Experience

- Expert Witness, United States Court of Federal Claims
- Expert Witness, United States Bankruptcy Court, Middle and Eastern Districts of Louisiana
- Expert Witness, United States Federal Court, Eastern District of Louisiana
- Expert Witness, Civil District Court for the Parish of Orleans, State of Louisiana.
- Expert Witness, State Civil District Court, Dallas County, State of Texas.
- Expert Witness, Louisiana Tax Commission
- Expert Witness, Circuit Court for the City of Norfolk, Virginia
- Expert Witness, 9th JDC, 23rd JDC and 32nd JDC, State of Louisiana
- Expert Witness, Indiana Board of Tax Review, State of Indiana

Court Testimony

2020	GIV Green Tree Mall Investor, LLC v. Clark County Assessor, Petition Nos. 10-011-17-1-4-02088-17, 10-011-18-1-4-00149-20 and 10-011-19-1-4-00150-20, Indiana Board of Tax Review, State of Indiana.
2020	Low Land Investors, LLC, Low Land Construction Co., Inc. v. New Generation Shipbuilding, LLC, Case No. 180743, 32nd Judicial District for Terrebonne Parish, State of Louisiana (Deposition/Testimony)
2020	Cella III, LLC v. Jefferson Parish Hospital District No. 2, Civil Action No. EDLA 19-11528, Bankruptcy No. 19-01145, United States District Court for the Eastern District of Louisiana (Deposition/Testimony)
2020	Elizabeth Sewell, et al v. Sewerage & Water Board of New Orleans, Docket No. 15-4501, Division D-12, Civil District Court, Parish of Orleans, State of Louisiana (Deposition)
2019	Virginia Natural Gas, Inc. v. Colonna's Ship Yard, Incorporated, Case No. CL18-2169, Circuit Court for the City of Norfolk, State of Virginia (Deposition)
2018	Jeannette C. Liebman, Wife of/and Paul E. Ramoni, Jr. v. The United States, Docket No. 14-1165, United States Court of Federal Claims (Testimony)
2016	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 16-22173-001 and 16-22173-002, Louisiana Tax Commission, State of Louisiana. (Testimony)
2016	Appeal of Fulton Development (Harrah's Hotel) v. Orleans Parish Board of Review, Docket No. 16-22171-002, Louisiana Tax Commission, State of Louisiana (Testimony)
2016	Jeannette C. Liebman and Paul E. Ramoni, Jr. v. United States of America, Case No. 14-1165 L, United States Court of Federal Claims (Deposition)
2016	State of Louisiana, Department of Transportation & Development v. Northport Properties Partnership, Et Al, Docket No. 233,894, 9th Judicial District, Parish of Rapides, State of Louisiana (Deposition)
2015	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 15-22173-018 and 15-22173-019, Louisiana Tax Commission, State of Louisiana. (Testimony)

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Court Testimony (Continued)

2015	Doretha Z. Walker et al vs. AMID/Metro Partnership, LLC and City of New Orleans, Docket No. 07-14794, Division H-14, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2015	Sandra Oubre Sotile, Et Al vs Dooley Oubre, Et Al, Docket No. 110,622, 23rd Judicial District Court, Ascension Parish, Louisiana (Deposition)
2014	North Shore Lodging, LLC vs Commonwealth Land Title Insurance Company, Case No. 2:2013cv06070, United States Court for the Eastern District of Louisiana (Deposition)
2014	Appeal of Filmore Parc Apartments v. Orleans Parish Board of Review, Docket Nos. 14-22173-003 and 14-22173-004, Louisiana Tax Commission, State of Louisiana. (Testimony)
2014	State Bank of Texas vs. Granbury Hospitality Inc., et al, Cause No. DC-12-06398, 44th State Civil District Court, Dallas County, State of Texas. (Testimony)
2013	Bruce L. Feingerts v Succession of Doris Feingerts, et al, Adversary Proceeding No. 2011-9918, Civil District Court for the Parish of Orleans, State of Louisiana. (Testimony)
2012	Consolidated Cases of Percy J. Marchand versus Entergy New Orleans, Inc., Docket No. 2009-12695 AND Omar Duncan, Et Al, vs. Entergy New Orleans, Inc., Docket No. 2010-0714 AND Leroy Anthony Vignaud versus Entergy New Orleans, Inc. Docket No. 2010-5566, Division "C" of the Civil District Court for the Parish of Orleans, State of Louisiana. (Deposition)
2011	Pleasant View Development, LLC v Charles Anthony Bonaventure, Gina Bonaventure Porciau, Charles R. St. Romain, and Patin Engineers and Surveyors, Inc., Adversary Proceeding No. 10-1024, United States Bankruptcy Court, Middle District of Louisiana (Testimony)
2011	1522 R.E. Lee Blvd., LLC v. Bank of New Orleans, Civil District Court for the Parish of Orleans, State of Louisiana (Deposition)

Partial List of Appraisal Assignments Completed

Water and Wastewater Systems

Resolve Water, Slidell, LA

Coast Water, Slidell, LA

H20 Water and Wastewater, St. Tammany Parish, LA

Mo-Dad Utilities, Tangipahoa, Livingston, West Baton Rouge, East Baton Rouge and West Feliciana Parishes, LA

Scientific System, Jacksonville, NC

Center Ridge System, Murray, KY

Blue Creek Utilities, Jacksonville, NC

Delaplain Utilities, Georgetown, KY

River Bluff Wastewater System, River Bluff, KY

Major Retail

Green Tree Mall (±443,933 square feet), Clarksville, IN

Northshore Square Mall (±621,192 square feet), Slidell, LA

The Shoppes at Fremaux (±600,000 square feet), Slidell, LA

Slidell Factory Outlet Mall, Slidell, LA

Southland Mall (±600,000 square feet), Houma, LA

The Plaza (±1,200,000 square feet), New Orleans, LA

Belle Promenade (±750,000 square feet), Marrero, LA

Jax Brewery, New Orleans, LA

River Marketplace Shopping Center, Lafayette, LA

Natchez Mall (±268,857 square feet), Natchez, MS

Bradley Square Mall (568,508 square feet), Cleveland, TN

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Healthcare

Gilchrist at Stadium Place, Baltimore, MD
Savoy Medical Center, Mamou, LA
Methodist Hospital, New Orleans, LA
Lakeland Hospital, New Orleans, LA
Shriner's Hospital, Shreveport, LA
Fairway Surgical Hospital, Covington, LA
Southpark Hospital, Lafayette, LA
St. James Parish Hospital, St. James, LA
Green Clinic and Surgery Center, Ruston, LA
Numerous Nursing Homes throughout Louisiana
Lambeth House Assisted Living, New Orleans, LA
O'Connor Hospital, San Jose, CA
St. Louise Regional Medical Center, Gilroy, CA
St. Vincent Medical Center, Los Angeles, CA
Rosewood Assisted Living Facility, Charlottesville, VA

Industrial

Colonna's Shipyard, Norfolk, VA
Signal International Shipyard, Orange, TX
Signal International Shipyard, Mobile, AL
Signal International Shipyard, Port Arthur, TX
Signal International Shipyard, Pascagoula, MS
Bender Shipyard, Mobile, AL
Plastic Infusion Plant, Hammond, LA
UBT Coal Transfer Facility, Davant, LA
Trinity Yachts, Gulfport, MS
Trinity Yachts, New Orleans, LA
Coca-Cola Facility, Thibodaux, LA
LaShip Shipyard, Houma, LA
Dow Chemical Plant, Norco, LA
Port of St. Bernard, St. Bernard, LA
Owensboro Riverport, Owensboro, KY
Toulouse Street Wharf, Port of New Orleans, LA
Mississippi River Dock, Venice, LA
Port of Iberia, New Iberia, LA.
Kaiser Site, Port of Greater Baton Rouge, LA
Proposed Port of Cameron, Cameron, LA
Union Tank Car Plant, Alexandria, LA

Entertainment/Leisure

Dixie Landing Amusement Park, Baton Rouge, LA
Blue Bayou Water Park, Baton Rouge, LA
Proposed Aqualand Water Park, Dayton, TX
Saenger Theatre, New Orleans, LA
Orpheum Theatre, New Orleans, LA
Vina Robles Amphitheatre, Paso Robles, CA
House of Blues, New Orleans, LA
The Oaks Golf Course, Pass Christian, MS
Money Hill Golf Course, Abita Springs, LA
Pelican Pointe Golf Course, Gonzales, LA
Colonial Country Club, Harahan, LA
O'Neal Theatres, Louisiana/Mississippi
Antoine's Restaurant, New Orleans, LA
AMC Theatres, Metairie/Hammond/Houma, LA
Southern Belle Casino, St. Francisville, LA
Bayou Marina, Casino and Hotel, Chalmette, LA
Lucky Deuces Casino, Greensburg, LA
Lafitte Harbor Marina, Lafitte, LA
Vinot Marina, New Orleans, LA
River Highlands Marina, Ascension Parish, LA
Kemper Marina, Gulfport, MS
C and M Marina, Lafitte, LA
Cypress Cove Marina, Venice, LA
Starlight Movie Studios, New Orleans, LA

Schools

Clifton L. Ganus Academy, New Orleans, LA
Mt. Carmel Academy, New Orleans, LA
Israel Augustine School, New Orleans, LA
Millerville Academy, Baton Rouge, LA
Louise S. McGhee School, New Orleans, LA
Stuart Hall Academy, New Orleans, LA
Believer's Life Academy, Marrero, LA

QUALIFICATIONS OF THE APPRAISER (Continued)

ARTHUR L. SCHWERTZ, MAI

Partial List of Appraisal Assignments Completed (Continued)

Special Purpose Properties

Nuclear Reactor Simulator Facility, St. Francisville, LA

Statewide Economic Obsolescence Study for Hibernia Bank, State of Louisiana

Mitigation Bank, St. James Parish, LA

Mitigation Bank, Livingston Parish, LA

Mitigation Bank, East Baton Rouge Parish, LA

Elmer's Island, Jefferson Parish, LA

USPS Facilities throughout Louisiana and Mississippi

Multi-Family

Shadowlake Apartments, Harvey, LA

Citrus Creek Apartments, Harahan, LA

Palmetto Creek Apartments, Harahan, LA

The Reserve at Acadiana, Lafayette, LA

Gravier Place Apartments, New Orleans, LA

The Saulet Apartments, New Orleans, LA

Town Oaks Apartments, Shreveport, LA

University Edge Apartments, Hattiesburg, MS

Legacy Condominiums Phase I, Gulfport, MS

Legacy Condominiums Phase II, Gulfport, MS

South Beach Condominiums, Biloxi, MS

Hotels

Super 7 Motel, Lafayette, LA

Harrah's Hotel, New Orleans, LA

Candlewoods Suites Hotel, Houma, LA

Candlewoods Suites Hotel, Lafayette, LA

Hyatt House Hotel, Columbus, MS

Hampton Inn, Harahan, LA

Hampton Inn, Metairie, LA

Hampton Inn Convention Center, New Orleans, LA

Hampton Inn Uptown, New Orleans, LA

Hampton Inn, Mobile, AL

Courtyard by Marriott, Metairie, LA, Baton Rouge,

Residence Inn, Metairie, LA

Quality Inn, Opelousas, LA

LaQuinta, Slidell, LA

Historic French Market Inn, New Orleans, LA

Wyndham Hotel, Metairie, LA

Holiday Inn Superdome, New Orleans, LA

Hilton Garden Inn, Kenner, LA

Hilton Garden Inn LA

Office Buildings

Xerox Centre, Kenner, LA

Park Tower, Lafayette, LA

Former Stewart Enterprises Building, Metairie, LA

First NBC Building, New Orleans, LA

Executive Plaza, New Orleans, LA

Chase Tower, Houma, LA

Maison Blanche Building, New Orleans, LA

Yenni Office Building, Harahan, LA

Dominion Tower, New Orleans, LA

Elmwood Tower, Harahan, LA

Freeport-McMoran Building, New Orleans, LA

Entergy Building, New Orleans, LA

1250 Poydras Building, New Orleans, LA

Subdivisions

Ashton Plantation, Luling, LA

Acadiana Subdivision, Marrero, LA

Acadian Villas, Marrero, LA

The Arbors at English Turn, New Orleans, LA

Plantation Acres, Thibodaux, LA

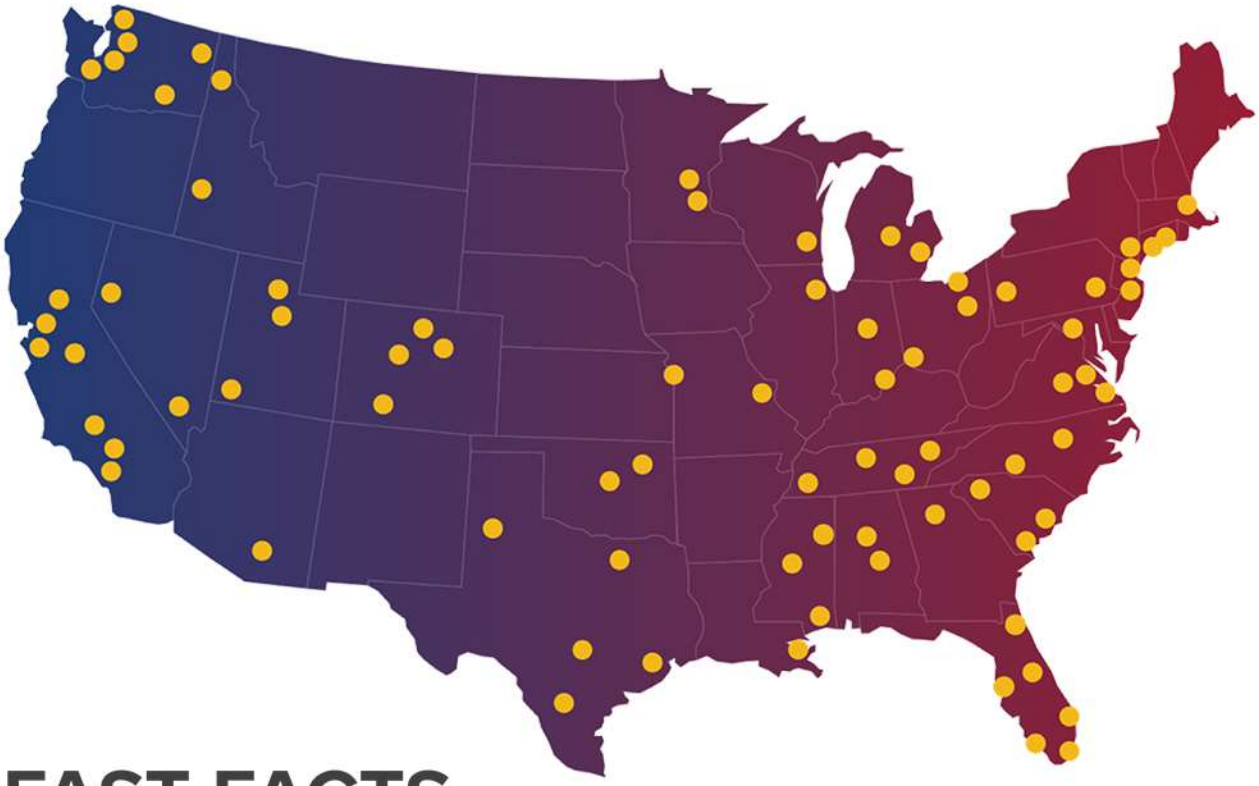
Woodstone Subdivision, Mandeville, LA

Southlake Villages, Kenner, LA

Village Green Subdivision, Harvey, LA

Oak Island Subdivision, New Orleans, LA

Valbridge
PROPERTY ADVISORS



FAST FACTS

COMPANY INFORMATION

- Valbridge is the largest independent national commercial real estate valuation and advisory services firm in North America.
  - Total number of MAI-designated appraisers: 200+ on staff
  - Total number of office locations: 70+ across U.S.
  - Total number of staff: 675+ strong
- Valbridge covers the entire U.S. from coast to coast.
- Valbridge services all property types, including special-purpose properties.
- Valbridge provides independent valuation services. We are not owned by a brokerage firm or investment company.
- Every Valbridge office is led by a senior managing director who holds the MAI designation of the Appraisal Institute.
- Valbridge is owned by our local office leaders.
- Valbridge welcomes single-property assignments as well as portfolio, multi-market and other bulk-property engagements.

Valbridge Property Advisors, Inc.
2240 Venetian Court • Naples, FL 34109 • Phone: (888) 981-2029
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Suite 121
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520.321.0000

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4915 Calloway Drive
Suite 101
Bakersfield, CA 93312
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1370 N. Brea Boulevard
Suite 255
Fullerton, CA 92835
714.449.0852

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Suite E-2
Modesto, CA 95355
209.569.0450

99 S. Lake Avenue
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Pasadena, CA 91101
626.744.0428

3090 Fite Circle
Suite 202
Sacramento, CA 95827
916.361.2509

55 South Market Street
Suite 1210
San Jose, CA 95113
408.279.1520

1306 Higuera Street
San Luis Obispo, CA 93401
805.544.2472

3160 Crow Canyon Place
Suite 245
San Ramon, CA 94583
925.327.1660

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7445 E. Peakview Avenue
Centennial, CO 80111
303.443.9600

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Suite 7
Boulder, CO 80303
303.443.9600

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Basalt, CO 81621
970.340.1016

1099 Main Avenue
Suite 311
Durango, CO 81301
970.340.1016

CONNECTICUT
15 Concord Street
Glastonbury, CT 06033
860.246.4606

17 Covewood Drive
Norwalk, CT 06853
203.286.6520

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2240 Venetian Court
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301 Almeria Avenue,
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844.822.7825

734 Rugby Street
Orlando, FL 32804
844.822.7825

2601 W Horatio Street
Unit 6
Tampa, FL 33609
844.822.7825

2711 Poinsettia Avenue
West Palm Beach, FL 33407
561.833.5331

GEORGIA
2675 Paces Ferry Road
Suite 145
Atlanta, GA 30339
678.644.4853

IDAHO
1459 Tyrell Lane
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208.336.1097

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Suite 100
Coeur d'Alene, ID 83814
208.292.2965

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566 W. Lake Street
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820 Fort Wayne Avenue
Indianapolis, IN 46204
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913.451.1451

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9000 Wessex Place
Suite 306
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502.585.3651

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2030 Dickory Avenue
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11100 Dovedale Court
Marriottsville, MD 21104
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260 Bear Hill Road
Suite 106
Waltham MA 02451
781.790.5645

MICHIGAN
1420 Washington Blvd.
Suite 301
Detroit, MI 48226
313.986.3313.

MICHIGAN (cont'd)
2127 University Park Drive
Suite 390
Okemos, MI 48864
517.336.0001

MINNESOTA
255 East Kellogg Boulevard
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St. Paul, MN 55101
651.370.1475

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1010 Ford Street
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737 Highway 51
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501 Highway 12 West
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5205 Maryland Way
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CORPORATE OFFICE 2240 Venetian Court, Naples, FL 34109 | 239-325-8234 phone, 239-325-8356 fax | valbridge.com

Spring 2021

Each Valbridge office is independently owned and operated.

Data Request # 11
Additional Costs

CSWR Florida- Sunshine

Category	Vendor	Amount
Closing Costs		73,142.99
Easement Purchase		34,133.50
Engineering - GIS	21 Design Group Inc.	128,233.35
Engineering - Survey	21 Design Group Inc.	613,011.77
Engineering - Survey	Clearpoint Consulting Engineers, P.A.	16,993.75
Legal - Real Estate	Beckemeier LeMoine Law	44,509.41
Legal - Real Estate	Bryant Miller Olive	12,913.50
Legal - Real Estate	Gartner, Brock and Simon, LLP	4,467.40
Legal - Real Estate	Radey Law Firm	1329.74
Legal - Real Estate	Trow & Dobbins, P.A.	19,300.00
Total		948,035.41

Data Request # 14
Journal Entries

CSWR Florida Utility Operating Company
Sunshine- Purchase/Acquisition Assets

Date of Staff Report Used	5/31/2021 Staff NBV Approval
In-Service Date	5/24/2022
Purchase Price	6,065,842.52
Closing cost	73,143.10

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Utility Plant Purchased	104.000		6,138,985.62	Total closing consideration	FL-Sunshine Utilities
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Ponderosa Pines
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Quail Run
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Ashley Heights
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Belleview Oaks
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Country Walk Water
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Eleven Oaks
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Emil Mar
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Florida Heights
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-FLoyd Clark Water
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Fore Oaks
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Hilltop
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Little Lake Weir
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Oakhurst
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Oakhaven
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Ocala Heights
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Ocala Garden
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Ocklawaha
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Sandy Acres
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Sunlight Acres
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Sunray Water
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Sun Resorts
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Whispering Sands
Land & Land Rights	303.000	3,180.13		Closing Costs	FL-Winding Waters
Misc Liab	242.000		7,249.48	Real Estate Tax 1/1/22-5/23/22	FL-Sunshine Utilities
	108.100		5,207.00	Org accum depr- no asset value	FL-Sunshine Utilities
Organization	301.000	-		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Organization	301.000	-		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Structures & Improvements	304.000	2,603.50		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Structures & Improvements	304.000	2,603.50		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Wells & Springs	307.000	12,646.00		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Wells & Springs	307.000	12,646.00		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Pumping Equipment	311.000	14,942.00		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Pumping Equipment	311.000	14,942.00		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Water Treatment	320.000	3,323.50		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Water Treatment	320.000	3,323.50		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Distribution Reservoirs & Standpipes	330.000	17,853.00		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Distribution Reservoirs & Standpipes	330.000	17,853.00		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Trans & Dist Mains	331.000	5,824.00		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Trans & Dist Mains	331.000	5,824.00		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Services	333.000	4,002.00		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Services	333.000	4,002.00		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Meters & Meter Installations	334.000	4,615.50		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Meters & Meter Installations	334.000	4,615.50		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Office Furniture & Equipment	340.000	3,728.50		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Office Furniture & Equipment	340.000	3,728.50		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Transportaiton Equipment	341.000	780.50		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Transportaiton Equipment	341.000	780.50		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Tools, Shop, & Garage Equip	343.000	990.00		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Tools, Shop, & Garage Equip	343.000	990.00		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Land	303.000	3,512.04		Staff Report-Pondersoa Pines & Quail Run	FL-Ponderosa Pines
Land	303.000	3,512.04		Staff Report-Pondersoa Pines & Quail Run	FL-Quail Run
Accum Depr	108.000		87,303.97	Staff Report+ Calc Pondersoa & Quail	FL-Sunshine Utilities
Organization	301.000	79.05		Staff Report Marion County	FL-Ashley Heights
Organization	301.000	79.05		Staff Report Marion County	FL-Belleview Oaks
Organization	301.000	79.05		Staff Report Marion County	FL-Country Walk Water
Organization	301.000	79.05		Staff Report Marion County	FL-Eleven Oaks
Organization	301.000	79.05		Staff Report Marion County	FL-Emil Mar
Organization	301.000	79.05		Staff Report Marion County	FL-Florida Heights
Organization	301.000	79.05		Staff Report Marion County	FL-FLoyd Clark Water
Organization	301.000	79.05		Staff Report Marion County	FL-Fore Oaks
Organization	301.000	79.05		Staff Report Marion County	FL-Hilltop
Organization	301.000	79.05		Staff Report Marion County	FL-Little Lake Weir
Organization	301.000	79.05		Staff Report Marion County	FL-Oakhurst
Organization	301.000	79.05		Staff Report Marion County	FL-Oakhaven
Organization	301.000	79.05		Staff Report Marion County	FL-Ocala Heights
Organization	301.000	79.05		Staff Report Marion County	FL-Ocala Garden
Organization	301.000	79.05		Staff Report Marion County	FL-Ocklawaha
Organization	301.000	79.05		Staff Report Marion County	FL-Sandy Acres
Organization	301.000	79.05		Staff Report Marion County	FL-Sunlight Acres
Organization	301.000	79.05		Staff Report Marion County	FL-Sunray Water
Organization	301.000	79.05		Staff Report Marion County	FL-Sun Resorts
Organization	301.000	79.05		Staff Report Marion County	FL-Whispering Sands
Organization	301.000	79.05		Staff Report Marion County	FL-Winding Waters
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Ashley Heights
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Belleview Oaks
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Country Walk Water
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Eleven Oaks
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Emil Mar
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Florida Heights
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-FLoyd Clark Water
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Fore Oaks
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Hilltop
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Little Lake Weir
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Oakhurst
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Oakhaven
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Ocala Heights
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Ocala Garden
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Ocklawaha
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Sandy Acres
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Sunlight Acres
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Sunray Water
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Sun Resorts

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Whispering Sands
Structures & Improvements	304.000	296.52		Staff Report Marion County	FL-Winding Waters
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Ashley Heights
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Belleview Oaks
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Country Walk Water
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Eleven Oaks
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Emil Mar
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Florida Heights
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-FLoyd Clark Water
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Fore Oaks
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Hilltop
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Little Lake Weir
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Oakhurst
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Oakhaven
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Ocala Heights
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Ocala Garden
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Ocklawaha
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Sandy Acres
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Sunlight Acres
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Sunray Water
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Sun Resorts
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Whispering Sands
Wells & Springs	307.000	4,510.19		Staff Report Marion County	FL-Winding Waters
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Ashley Heights
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Belleview Oaks
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Country Walk Water
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Eleven Oaks
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Emil Mar
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Florida Heights
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-FLoyd Clark Water
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Fore Oaks
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Hilltop
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Little Lake Weir
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Oakhurst
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Oakhaven
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Ocala Heights
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Ocala Garden
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Ocklawaha
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Sandy Acres
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Sunlight Acres
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Sunray Water
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Sun Resorts
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Whispering Sands
Supply Mains	309.000	5,249.33		Staff Report Marion County	FL-Winding Waters
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Ashley Heights
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Belleview Oaks
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Country Walk Water
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Eleven Oaks
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Emil Mar
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Florida Heights
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-FLoyd Clark Water
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Fore Oaks

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Hilltop
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Little Lake Weir
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Oakhurst
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Oakhaven
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Ocala Heights
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Ocala Garden
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Ocklawaha
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Sandy Acres
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Sunlight Acres
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Sunray Water
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Sun Resorts
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Whispering Sands
Power Generation Equipment	310.000	4,422.95		Staff Report Marion County	FL-Winding Waters
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Ashley Heights
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Belleview Oaks
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Country Walk Water
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Eleven Oaks
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Emil Mar
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Florida Heights
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-FLoyd Clark Water
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Fore Oaks
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Hilltop
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Little Lake Weir
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Oakhurst
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Oakhaven
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Ocala Heights
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Ocala Garden
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Ocklawaha
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Sandy Acres
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Sunlight Acres
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Sunray Water
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Sun Resorts
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Whispering Sands
Pumping Equipment	311.000	24,285.57		Staff Report Marion County	FL-Winding Waters
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Ashley Heights
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Belleview Oaks
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Country Walk Water
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Eleven Oaks
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Emil Mar
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Florida Heights
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-FLoyd Clark Water
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Fore Oaks
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Hilltop
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Little Lake Weir
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Oakhurst
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Oakhaven
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Ocala Heights
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Ocala Garden
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Ocklawaha
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Sandy Acres
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Sunlight Acres
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Sunray Water

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Sun Resorts
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Whispering Sands
Water Treatment	320.000	9,410.81		Staff Report Marion County	FL-Winding Waters
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Ashley Heights
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Belleview Oaks
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Country Walk Water
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Eleven Oaks
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Emil Mar
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Florida Heights
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-FLoyd Clark Water
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Fore Oaks
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Hilltop
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Little Lake Weir
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Oakhurst
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Oakhaven
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Ocala Heights
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Ocala Garden
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Ocklawaha
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Sandy Acres
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Sunlight Acres
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Sunray Water
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Sun Resorts
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Whispering Sands
Distribution Reservoirs & Standpipes	330.000	4,031.76		Staff Report Marion County	FL-Winding Waters
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Ashley Heights
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Belleview Oaks
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Country Walk Water
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Eleven Oaks
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Emil Mar
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Florida Heights
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-FLoyd Clark Water
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Fore Oaks
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Hilltop
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Little Lake Weir
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Oakhurst
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Oakhaven
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Ocala Heights
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Ocala Garden
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Ocklawaha
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Sandy Acres
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Sunlight Acres
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Sunray Water
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Sun Resorts
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Whispering Sands
Trans & Dist Mains	331.000	51,034.33		Staff Report Marion County	FL-Winding Waters
Services	333.000	6,724.90		Staff Report Marion County	FL-Ashley Heights
Services	333.000	6,724.90		Staff Report Marion County	FL-Belleview Oaks
Services	333.000	6,724.90		Staff Report Marion County	FL-Country Walk Water
Services	333.000	6,724.90		Staff Report Marion County	FL-Eleven Oaks
Services	333.000	6,724.90		Staff Report Marion County	FL-Emil Mar
Services	333.000	6,724.90		Staff Report Marion County	FL-Florida Heights
Services	333.000	6,724.90		Staff Report Marion County	FL-FLoyd Clark Water

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Services	333.000	6,724.90		Staff Report Marion County	FL-Fore Oaks
Services	333.000	6,724.90		Staff Report Marion County	FL-Hilltop
Services	333.000	6,724.90		Staff Report Marion County	FL-Little Lake Weir
Services	333.000	6,724.90		Staff Report Marion County	FL-Oakhurst
Services	333.000	6,724.90		Staff Report Marion County	FL-Oakhaven
Services	333.000	6,724.90		Staff Report Marion County	FL-Ocala Heights
Services	333.000	6,724.90		Staff Report Marion County	FL-Ocala Garden
Services	333.000	6,724.90		Staff Report Marion County	FL-Ocklawaha
Services	333.000	6,724.90		Staff Report Marion County	FL-Sandy Acres
Services	333.000	6,724.90		Staff Report Marion County	FL-Sunlight Acres
Services	333.000	6,724.90		Staff Report Marion County	FL-Sunray Water
Services	333.000	6,724.90		Staff Report Marion County	FL-Sun Resorts
Services	333.000	6,724.90		Staff Report Marion County	FL-Whispering Sands
Services	333.000	6,724.90		Staff Report Marion County	FL-Winding Waters
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Ashley Heights
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Belleview Oaks
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Country Walk Water
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Eleven Oaks
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Emil Mar
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Florida Heights
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-FLoyd Clark Water
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Fore Oaks
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Hilltop
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Little Lake Weir
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Oakhurst
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Oakhaven
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Ocala Heights
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Ocala Garden
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Ocklawaha
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Sandy Acres
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Sunlight Acres
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Sunray Water
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Sun Resorts
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Whispering Sands
Meters & Meter Installations	334.000	10,759.81		Staff Report Marion County	FL-Winding Waters
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Ashley Heights
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Belleview Oaks
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Country Walk Water
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Eleven Oaks
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Emil Mar
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Florida Heights
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-FLoyd Clark Water
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Fore Oaks
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Hilltop
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Little Lake Weir
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Oakhurst
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Oakhaven
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Ocala Heights
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Ocala Garden
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Ocklawaha

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Sandy Acres
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Sunlight Acres
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Sunray Water
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Sun Resorts
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Whispering Sands
Other Plant & Misc Equip	339.000	1,231.33		Staff Report Marion County	FL-Winding Waters
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Ashley Heights
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Belleview Oaks
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Country Walk Water
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Eleven Oaks
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Emil Mar
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Florida Heights
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-FLoyd Clark Water
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Fore Oaks
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Hilltop
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Little Lake Weir
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Oakhurst
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Oakhaven
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Ocala Heights
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Ocala Garden
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Ocklawaha
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Sandy Acres
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Sunlight Acres
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Sunray Water
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Sun Resorts
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Whispering Sands
Office Furniture & Equipment	340.000	3,410.95		Staff Report Marion County	FL-Winding Waters
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Ashley Heights
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Belleview Oaks
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Country Walk Water
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Eleven Oaks
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Emil Mar
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Florida Heights
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-FLoyd Clark Water
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Fore Oaks
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Hilltop
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Little Lake Weir
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Oakhurst
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Oakhaven
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Ocala Heights
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Ocala Garden
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Ocklawaha
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Sandy Acres
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Sunlight Acres
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Sunray Water
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Sun Resorts
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Whispering Sands
Transportaiton Equipment	341.000	5,334.90		Staff Report Marion County	FL-Winding Waters
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Ashley Heights
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Belleview Oaks
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Country Walk Water
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Eleven Oaks

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Emil Mar
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Florida Heights
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-FLoyd Clark Water
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Fore Oaks
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Hilltop
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Little Lake Weir
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Oakhurst
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Oakhaven
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Ocala Heights
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Ocala Garden
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Ocklawaha
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Sandy Acres
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Sunlight Acres
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Sunray Water
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Sun Resorts
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Whispering Sands
Stores Equipment	342.000	210.67		Staff Report Marion County	FL-Winding Waters
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Ashley Heights
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Belleview Oaks
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Country Walk Water
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Eleven Oaks
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Emil Mar
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Florida Heights
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-FLoyd Clark Water
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Fore Oaks
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Hilltop
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Little Lake Weir
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Oakhurst
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Oakhaven
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Ocala Heights
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Ocala Garden
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Ocklawaha
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Sandy Acres
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Sunlight Acres
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Sunray Water
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Sun Resorts
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Whispering Sands
Tools, Shop, & Garage Equip	343.000	1,786.24		Staff Report Marion County	FL-Winding Waters
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Ashley Heights
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Belleview Oaks
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Country Walk Water
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Eleven Oaks
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Emil Mar
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Florida Heights
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-FLoyd Clark Water
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Fore Oaks
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Hilltop
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Little Lake Weir
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Oakhurst
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Oakhaven
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Ocala Heights
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Ocala Garden

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Ocklawaha
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Sandy Acres
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Sunlight Acres
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Sunray Water
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Sun Resorts
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Whispering Sands
Power Operatedf Equipment	345.000	247.62		Staff Report Marion County	FL-Winding Waters
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Ashley Heights
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Belleview Oaks
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Country Walk Water
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Eleven Oaks
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Emil Mar
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Florida Heights
Communication Equip	346.000	519.62		Staff Report Marion County	FL-FLoyd Clark Water
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Fore Oaks
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Hilltop
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Little Lake Weir
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Oakhurst
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Oakhaven
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Ocala Heights
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Ocala Garden
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Ocklawaha
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Sandy Acres
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Sunlight Acres
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Sunray Water
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Sun Resorts
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Whispering Sands
Communication Equip	346.000	519.62		Staff Report Marion County	FL-Winding Waters
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Ashley Heights
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Belleview Oaks
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Country Walk Water
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Eleven Oaks
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Emil Mar
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Florida Heights
Misc Equip	347.000	830.29		Staff Report Marion County	FL-FLoyd Clark Water
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Fore Oaks
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Hilltop
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Little Lake Weir
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Oakhurst
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Oakhaven
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Ocala Heights
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Ocala Garden
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Ocklawaha
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Sandy Acres
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Sunlight Acres
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Sunray Water
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Sun Resorts
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Whispering Sands
Misc Equip	347.000	830.29		Staff Report Marion County	FL-Winding Waters
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Ashley Heights
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Belleview Oaks
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Country Walk Water

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Eleven Oaks
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Emil Mar
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Florida Heights
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-FLoyd Clark Water
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Fore Oaks
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Hilltop
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Little Lake Weir
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Oakhurst
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Oakhaven
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Ocala Heights
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Ocala Garden
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Ocklawaha
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Sandy Acres
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Sunlight Acres
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Sunray Water
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Sun Resorts
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Whispering Sands
Other Intangible Plant	348.000	11,209.19		Staff Report Marion County	FL-Winding Waters
Land	303.000	3,512.04		Staff Report Marion County	FL-Ashley Heights
Land	303.000	3,512.04		Staff Report Marion County	FL-Belleview Oaks
Land	303.000	3,512.04		Staff Report Marion County	FL-Country Walk Water
Land	303.000	3,512.04		Staff Report Marion County	FL-Eleven Oaks
Land	303.000	3,512.04		Staff Report Marion County	FL-Emil Mar
Land	303.000	3,512.04		Staff Report Marion County	FL-Florida Heights
Land	303.000	3,512.04		Staff Report Marion County	FL-FLoyd Clark Water
Land	303.000	3,512.04		Staff Report Marion County	FL-Fore Oaks
Land	303.000	3,512.04		Staff Report Marion County	FL-Hilltop
Land	303.000	3,512.04		Staff Report Marion County	FL-Little Lake Weir
Land	303.000	3,512.04		Staff Report Marion County	FL-Oakhurst
Land	303.000	3,512.04		Staff Report Marion County	FL-Oakhaven
Land	303.000	3,512.04		Staff Report Marion County	FL-Ocala Heights
Land	303.000	3,512.04		Staff Report Marion County	FL-Ocala Garden
Land	303.000	3,512.04		Staff Report Marion County	FL-Ocklawaha
Land	303.000	3,512.04		Staff Report Marion County	FL-Sandy Acres
Land	303.000	3,512.04		Staff Report Marion County	FL-Sunlight Acres
Land	303.000	3,512.04		Staff Report Marion County	FL-Sunray Water
Land	303.000	3,512.04		Staff Report Marion County	FL-Sun Resorts
Land	303.000	3,512.04		Staff Report Marion County	FL-Whispering Sands
Land	303.000	3,512.04		Staff Report Marion County	FL-Winding Waters
Accum Depr	108.000		2,747,497.48	Staff Report Marion County + Calc	FL-Sunshine Utilities
CIAC Water	271.000		9,670.00	CIAC	FL-Quail Run
CIAC Water	271.000		9,670.00	CIAC	FL-Ponderosa Pines
CIAC Water	271.000		95,889.95	CIAC	FL-Ashley Heights
CIAC Water	271.000		95,889.95	CIAC	FL-Belleview Oaks
CIAC Water	271.000		95,889.95	CIAC	FL-Country Walk Water
CIAC Water	271.000		95,889.95	CIAC	FL-Eleven Oaks
CIAC Water	271.000		95,889.95	CIAC	FL-Emil Mar
CIAC Water	271.000		95,889.95	CIAC	FL-Florida Heights
CIAC Water	271.000		95,889.95	CIAC	FL-FLoyd Clark Water
CIAC Water	271.000		95,889.95	CIAC	FL-Fore Oaks
CIAC Water	271.000		95,889.95	CIAC	FL-Hilltop
CIAC Water	271.000		95,889.95	CIAC	FL-Little Lake Weir

Journal Entry to transfer In-Service assets post acquisition

Acct Name	Acct #	Debit	Credit	Note	Type
CIAC Water	271.000		95,889.95	CIAC	FL-Oakhurst
CIAC Water	271.000		95,889.95	CIAC	FL-Oakhaven
CIAC Water	271.000		95,889.95	CIAC	FL-Ocala Heights
CIAC Water	271.000		95,889.95	CIAC	FL-Ocala Garden
CIAC Water	271.000		95,889.95	CIAC	FL-Ocklawaha
CIAC Water	271.000		95,889.95	CIAC	FL-Sandy Acres
CIAC Water	271.000		95,889.95	CIAC	FL-Sunlight Acres
CIAC Water	271.000		95,889.95	CIAC	FL-Sunray Water
CIAC Water	271.000		95,889.95	CIAC	FL-Sun Resorts
CIAC Water	271.000		95,889.95	CIAC	FL-Whispering Sands
CIAC Water	271.000		95,889.95	CIAC	FL-Winding Waters
Acc Amort-CIAC-Water	272.000	7,167.33		CIAC Accum- Staff Report + Calc	FL-Quail Run
Acc Amort-CIAC-Water	272.000	7,167.33		CIAC Accum- Staff Report + Calc	FL-Ponderosa Pines
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Ashley Heights
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Belleview Oaks
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Country Walk Water
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Eleven Oaks
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Emil Mar
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Florida Heights
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-FLoyd Clark Water
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Fore Oaks
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Hilltop
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Little Lake Weir
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Oakhurst
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Oakhaven
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Ocala Heights
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Ocala Garden
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Ocklawaha
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Sandy Acres
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Sunlight Acres
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Sunray Water
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Sun Resorts
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Whispering Sands
Acc Amort-CIAC-Water	272.000	85,248.43		CIAC Accum- Staff Report + Calc	FL-Winding Waters
Acquisition Adjustment	114.000	5,860,876.82		Acq Adjustment-Pondersoa & Quail	FL-Sunshine Utilities
		11,019,272.55	**11,019,272.55**		

Data Request # 15
Post Acquisition Pro Forma

Sunshine Utilities

	2021	Y0	Y1	Y2	Y3	Y4	Y5
ERU's	4,036	4,036	4,036	4,036	4,036	4,036	4,036
Rate*	22.05	22.05	48.50	48.50	54.24	54.24	54.24
Revenue	1,180,790	995,326	2,348,952	2,348,952	2,626,952	2,626,952	2,626,952
Outside labor expenses	(978,605)	(572,694)	(592,738)	(613,484)	(634,956)	(657,180)	(680,181)
Administrative and office expense	0	(208,228)	(215,516)	(223,059)	(230,866)	(238,946)	(247,310)
Maintenance and repair expense	0	(223,189)	(231,001)	(239,086)	(247,454)	(256,115)	(265,079)
Purchased water	0	0	0	0	0	0	0
Purchased sewage treatment	0	0	0	0	0	0	0
Electric power expense (exclude office)	0	(73,557)	(76,131)	(78,796)	(81,554)	(84,408)	(87,362)
Chemicals expense	0	(41,297)	(42,742)	(44,238)	(45,787)	(47,389)	(49,048)
Testing fees	0	(82,657)	(85,550)	(88,544)	(91,643)	(94,851)	(98,171)
Transportation expense	0	0	0	0	0	0	0
Other operating expense	0	(466)	(482)	(499)	(516)	(534)	(553)
Total Operating Expense	(978,605)	(1,202,088)	(1,244,161)	(1,287,706)	(1,332,776)	(1,379,423)	(1,427,703)
Depreciation	(25,127)	(179,324)	(231,416)	(311,976)	(325,549)	(327,424)	(327,424)
Interest	(6,957)	0	(57,525)	(52,662)	(135,541)	(133,939)	(132,375)
Total Expenses	(1,010,689)	(1,381,412)	(1,533,102)	(1,652,345)	(1,793,867)	(1,840,787)	(1,887,502)
Operating Income	**170,101**	**(386,086)**	**815,850**	**696,607**	**833,085**	**786,165**	**739,450**
Income Tax	(99,392)	0	(216,200)	(184,601)	(220,768)	(208,334)	(195,954)
Net Income	**70,709**	**(386,086)**	**599,650**	**512,006**	**612,317**	**577,831**	**543,495**

*Rate reflects average bills per ERU assuming 5,000 gallons of usage per month

ASSUMPTIONS						
Total FL ERU's	20,675	31,923	34,871	38,710	39,173	39,636
ERU's in Rate		20,971	20,971	32,740	32,740	32,740
Total FL Rate Base	0	29,581	29,581	90,030	90,030	90,030
Total FL Rev Req	0	12,205	12,205	21,310	21,310	21,310
North Peninsula ERU's	4,036	4,036	4,036	4,036	4,036	4,036
North Peninsula Acq Premium	0	5,752	5,752	5,752	5,752	5,752
Equity	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
ROE	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
Tax Rate	26.5%	26.5%	26.5%	26.5%	26.5%	26.5%
Rate with Acq Premium	0	48.50	48.50	54.24	54.24	54.24
Inflation Rate	0.0%	3.5%	3.5%	3.5%	3.5%	3.5%
Amortization Years	30	30	30	30	30	30
Additional Plant Investment	0	2,083,670	3,222,400	542,930	75,000	0
Depreciation Rate	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Debt Issuance	0	7,000,000	7,000,000	20,000,000	20,000,000	20,000,000
Interest Rate	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%

CALCULATIONS						
Additional Depreciation Expense	0	(52,092)	(80,560)	(13,573)	(1,875)	0
Interest Expense	0	(455,000)	(455,000)	(1,300,000)	(1,300,000)	(1,300,000)
Equity Return with Acq Premium	0	1,405	1,405	4,276	4,276	4,276
Equity Return w/o Acq Premium	0	1,132	1,132	4,003	4,003	4,003
Tax Return with Acq Premium	0	507	507	1,542	1,542	1,542
Tax Return w/o Acq Premium	0	408	408	1,443	1,443	1,443
Acq Premium Amortization	0	192	192	192	192	192
Total Net Impact of Acq Premium		**563**	**563**	**563**	**563**	**563**
Rate Adjustment		**4.6%**	**4.6%**	**2.6%**	**2.6%**	**2.6%**
Rate w/o Acq Premium		**46.26**	**46.26**	**52.81**	**52.81**	**52.81**
Revenue Requirement w/o Acq Premium		**11,642**	**11,642**	**20,747**	**20,747**	**20,747**

Data Request # 24
Sunshine Engineering Memos

WATER SYSTEM ASSESSMENT

Ashley Heights Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Ashley Heights. A summary of the main parameters for the water system are summarized below in Table 1-1.

Table 1-1: Ashley Heights System Information

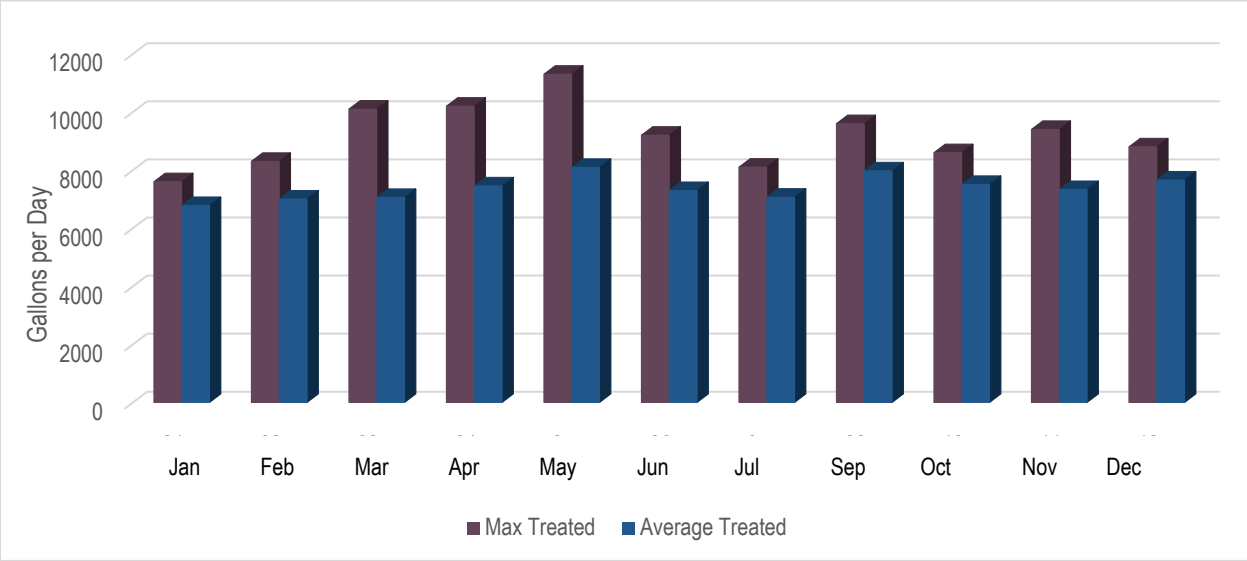
Water System Name	Ashley Heights
PWD ID Number	3424962
Classification	Community
Plant Category & Class	5D
Street Address	5580 NE 11th Ave
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	154 (Sanitary Survey)
Number of Service Connections	44 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	7,384 GPD (2019 Monthly Reporting)
Maximum Day Water Use	63,000 GPD* (Sanitary Survey)
Max-Day Design Capacity	44,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

*Abnormality Recorded on January 3rd, 2020, possibly due to a leak

1.2 Water Use

Potable water usage in the Ashley Heights community is depicted in Figure 1-1.

Figure 1-1: Ashley Heights Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 though a 2-inch Master Meter and check valve into the 5,000-gallon steel hydropneumatic tank. The well pump turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and flows through a 3-inch Kent flow meter and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	120 feet deep, 62 GPM	1991 (Sanitary Survey)	Poor
Treatment	Disinfection	Sodium Hypochlorite	Unknown	Poor
Storage	Hydropneumatic Tank	5,000 gallons, Steel	Unknown	Poor
Building	CMU	8 by 5.3 feet	Unknown	Fair

2.1.1 Source

The Ashley Heights well is located next to the treatment building and tank within a locked fenced in area and is about 25 feet from NE 11th Avenue The top of well casing is about 12 inches above grade and within a concrete pad. The well is 120 feet deep with one submersible Sta-Rite 62 GPM pump, 5 HP motor, single phase, and 230 Volts.

There is a check-valve on the discharge of the well pipe with a screen that is used as the air vent, and a sample tap. There is a capped pipe off the side for the purpose of introducing shock chlorination to the well, if needed.

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydro pneumatic tank. The chlorine mix is unknown and is housed in two 35-gallon day tanks located inside the pump station building. The chemical pump is a peristaltic 17 GPD Stenner Pump, set at 50% stroke. The average distribution residual in 2019 was 0.8 mg/L.

The chlorine pump will turn on when the pump is energized. The chemical pump outlet is wired to the well pump starter.

Table 2-2: Ashley Heights Chemical Metering Pumps

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Stenner
Model	85MPHP17
Size	17 GPD

Figure 2-2: Chlorine Treatment

2.1.3 Storage

The Ashley Heights water treatment plant has a 5,000-gallon hydropneumatic storage tank on-site. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed, as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the tank shell and head was in overall fair condition, the exterior condition was in overall good condition, but the interior coating was in poor condition with corrosion and areas with no interior coating. Please refer to Appendix B for the 2018 Tank Inspection Report.

During the site inspection, the tank was observed to be waterlogged likely due to a faulty check valve on the tank inlet line.

2.1.4 Pump Station Building

The pump station building is an 8 by 5.3-foot CMU building with a wooden roof primarily used for storage of the chlorine mixing, injection tank, and facility logbook. The building has no door but has an opening with a width of 41 inches. The building had no evidence of roof leaks or rodents, but the open door provides no containment for spills or protection from weather, rodents, and insects. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

Figure 2-3: Pump Station Building and Storage Tank

2.1.5 Back-Up Power

There is no emergency generator onsite or quick-connect for a portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on December 18, 2020 and stated that no deficiencies were noted during the inspection. In addition, no compliance issues or violations were observed in the Florida Department of Environmental Protection information portal in the last ten years. Please refer to Appendix E for the Sanitary Survey Report.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be necessary for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the

site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Source of Supply

There is a screened check valve on the well head that is functioning as an air vent that appears to have failed. This should be replaced. The well pump injects air into the hydropneumatic tank with each cycle, and without the functioning vent, the hydropneumatic tank was observed to be out of balance (waterlogged).

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental spills into the environment. Currently there are two 35-gallon drums for chlorine. These containers should be stored on a pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005.

Compliance can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG PAK 604 containment pallet with a 66-gallon containment capacity , kept in the pump station building. An example of the containment pallet is shown in Figure 2-4. Containment pallets are cost effective and available through multiple suppliers.

Figure 2-4: PIG 66-Gallon Containment Pallet

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The system has a 3-inch Kent meter on the discharge side of the pressure tank, which is read by the operator and manually recorded. This will have to be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

The hydropneumatic tank inspection report noted the tank interior to be in poor condition, with significant areas where no coating was present. Corrosion was also noted throughout the interior walls. The tank age is not known, but likely over fifteen years old. The tank interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in the 1991 and supplies water to four blocks using 6-inch PVC water main in a loop configuration with blowoff valves on dead ends. The loop has gate valves to isolate sections if needed and three blow-off valves. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes, and each home as its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the Ashley Heights plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Ashley Heights to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Ashley Heights is: **$22,000**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$10,000
Mission Monitoring at Well	$10,000
Total	$21,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,000
Total	$1,000

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Ashley Heights to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Table 4-3 through 4-6. The total cost estimate for Capital Improvements at Ashley Heights is: **$74,000**.

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$3,500
Total	$3,500

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$7,000
Total	$18,500

Table 4-5: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
General Building and Site Improvements	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

ASHLEY HEIGHTS S/D
5580 NE 11TH AVENUE
OCALA, FL 34420

Public Water System ID: 3424962
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 154
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
6309	4-INCH	AAE0274	ACTIVE	120	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Exit Disclaimer
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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

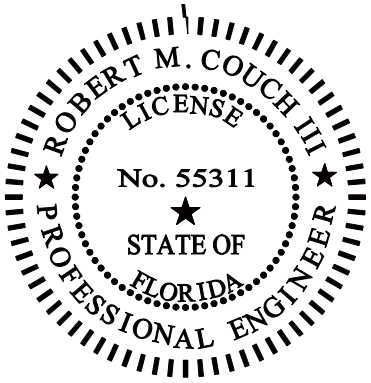
Ashley Heights Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Ashley Heights Subdivision
Street Address:	5580 NE 11th Avenue
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424962
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 6, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
15290 SE Highway 42, PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.05 23:49:30 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 6, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.06 millimeters. UTM readings from the tank heads indicated an average thickness of 7.56 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. The interior coating of the tank appeared to be in poor condition. There was no coating on significant areas of the tank interior and corrosion was noted throughout the tank interior.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 58 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 23'-11" (25'-9" including elliptical heads)
Diameter: 6'-0" outside diameter
Volume: 5,000 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken as coating was missing from significant portions of the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 68 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.06 millimeters in the cylindrical section and 7.56 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in poor condition. There were significant areas with no coating present and corrosion noted throughout the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.06 mm / (908 mm+0.6 x 6.06 mm)
= 0.399 MPa
= 58 psi

When:

t < 0.5R = 0.5 x 908 = 454 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.06 mm
R = inside radius of shell course under consideration (mm) = 908 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Ashley Heights subdivision 5,000-gallon hydropneumatic pressure tank was performed on December 6, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was no interior coating present on significant portions of the interior.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed surface corrosion throughout significant portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

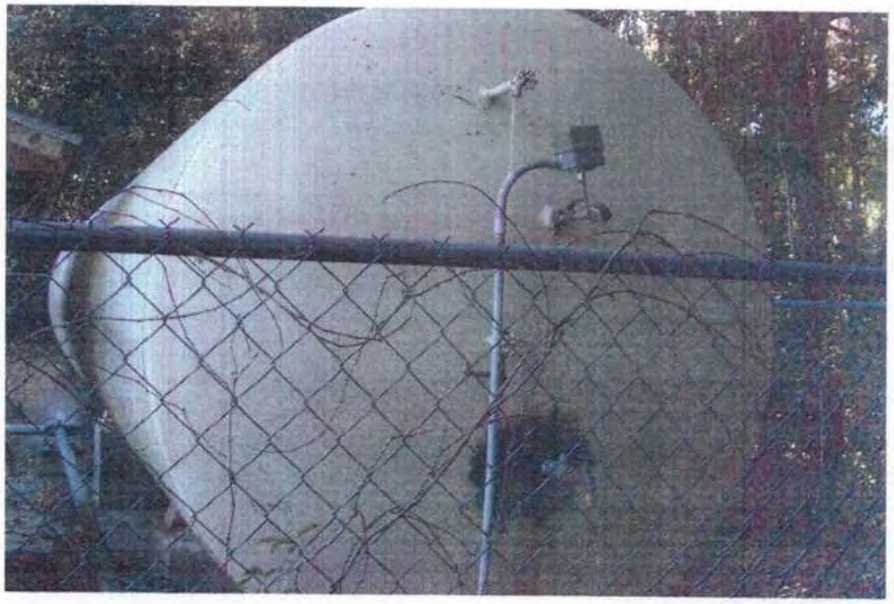
- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.
- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

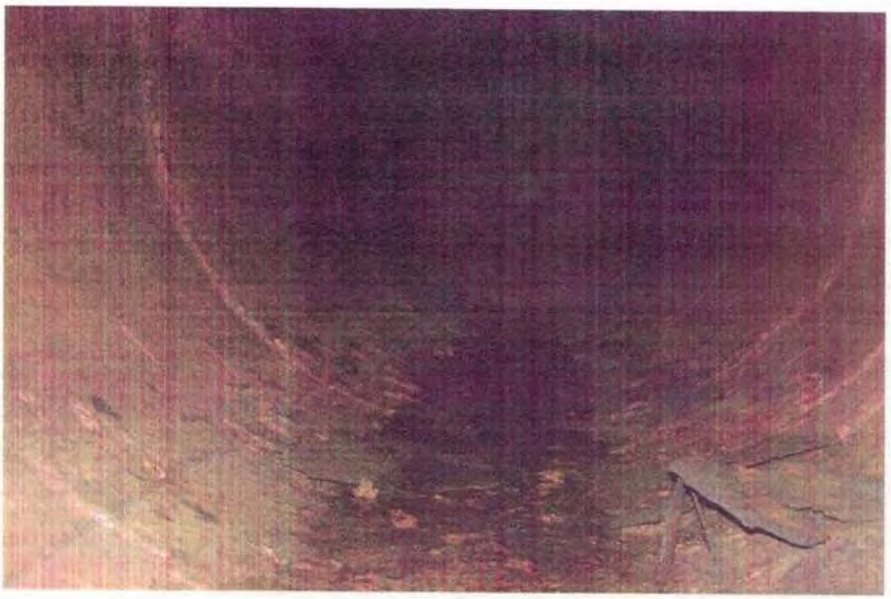
Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 58 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/5/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank





APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

ASHLEY HEIGHTS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	49
PWS:	3424962
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
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2970 Wellington Circle ~ Suite 101 ~ Tallahassee
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 120 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	7809 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424962**	
System name and address	**Ashley Heights**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**1086 NE 56th St**	
Population served and service connections.	Population =	Connections = 49
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	7809 GPD
Maximum Daily Demand (gpd)	12400 GPD
System Capacity (gpd)	44,000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	NE 11th Ave			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	120 FT			
Well Yield (gpd)	89,000GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	5 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Ashley Heights Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424962 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.
(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: _____
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1,*** 2019 ***, and ending December 31,*** 2019 to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Ashley Heights Subdivision

Florida Department of Environmental Protection Public Water System ID # 3424962

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes and treated for corrosion control. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR ASHLEY HEIGHTS

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228	(pCi/L)	MAR '15	No	2.5	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	APR '18	No	0.6	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	APR '18	No	0.001	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	APR '18	No	2.9	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	APR '18	No	0.028	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	1.39	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	APR '18	No	7.2	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.8	0.4 - 1.8	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	AUG '18	No	1.67	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUN '18	No	0.138	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019AshleyHeights.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

January 14, 2021

Dewaine Christmas, Owner
Sunshine Utilities of Central Florida, Inc.
10230 SE Highway 25
Belleview FL, 34420
sunshineutl@aol.com;

Re: Ashley Heights Subdivision
PW Facility ID #3424962
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on December 11, 2020. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Talia Ayala at 407-897-4307 or via e-mail at Talia.Ayala@FloridaDEP.gov.

Sincerely,

Jill Farris, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

cc: Talia Ayala, FDEP

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **ASHLEY HEIGHTS S/D** County Marion PWS ID # **3424962**
Plant Location 5580 NE 11th Avenue Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352-347-8228
Owner Address 10230 SE Highway 25, Belleview FL, 34420
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 12/18/20 Last Survey Date 1/23/18 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 44,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 44
Population Served 154 Basis MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* *Visit *Actual* *Visit
Days/wk: *Required* 2 *Actual* 2
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments *Visits must total 0.2 hr/week

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 8,906 gpd
Maximum Day (from MORs) 63,000 gpd 1/2020
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Master
Date Last Calibrated 8/4/16

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐ Yes ☐ No ☐ Unknown
Audio-visual alarm? ☐ Yes ☐ No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 11/14/12
Comments

PWS ID # 3424962
Date 12/18/20

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0274)			
Year Drilled		1991			
Depth Drilled		120’			
Drilling Method		Combination			
Type of Grout		Unknown			
Static Water Level		34’			
Pumping Water Level		39’			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		62’			
Diameter (outside casing)		4”			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	62			
	Motor Horsepower	5			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		Okay			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		Yes			

COMMENTS _____

PWS ID # 3424962
Date 12/18/20

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Stenner Capacity 17 gpd
Chlorine Feed Rate 50% Stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.3 Remote >2.2
Remote tap location 1148 NE 53rd Street
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H
Capacity (gal)	5,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	Discharge piping
Date of Inspection	12/18
Date of Cleaning	12/18

Comments

HIGH SERVICE PUMPS

Pump Number			
Type			
Make			
Model			
Capacity (gpm)			
Motor HP			
Date Installed			

Comments

DEFICIENCIES:

- No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2021 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2021, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2021.
- Monitoring schedules are available on the Central District's website: https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the

Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature	*Reviewer Signature*
Talia Ayala	Jill Farris
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
1/12/21	1/13/21
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

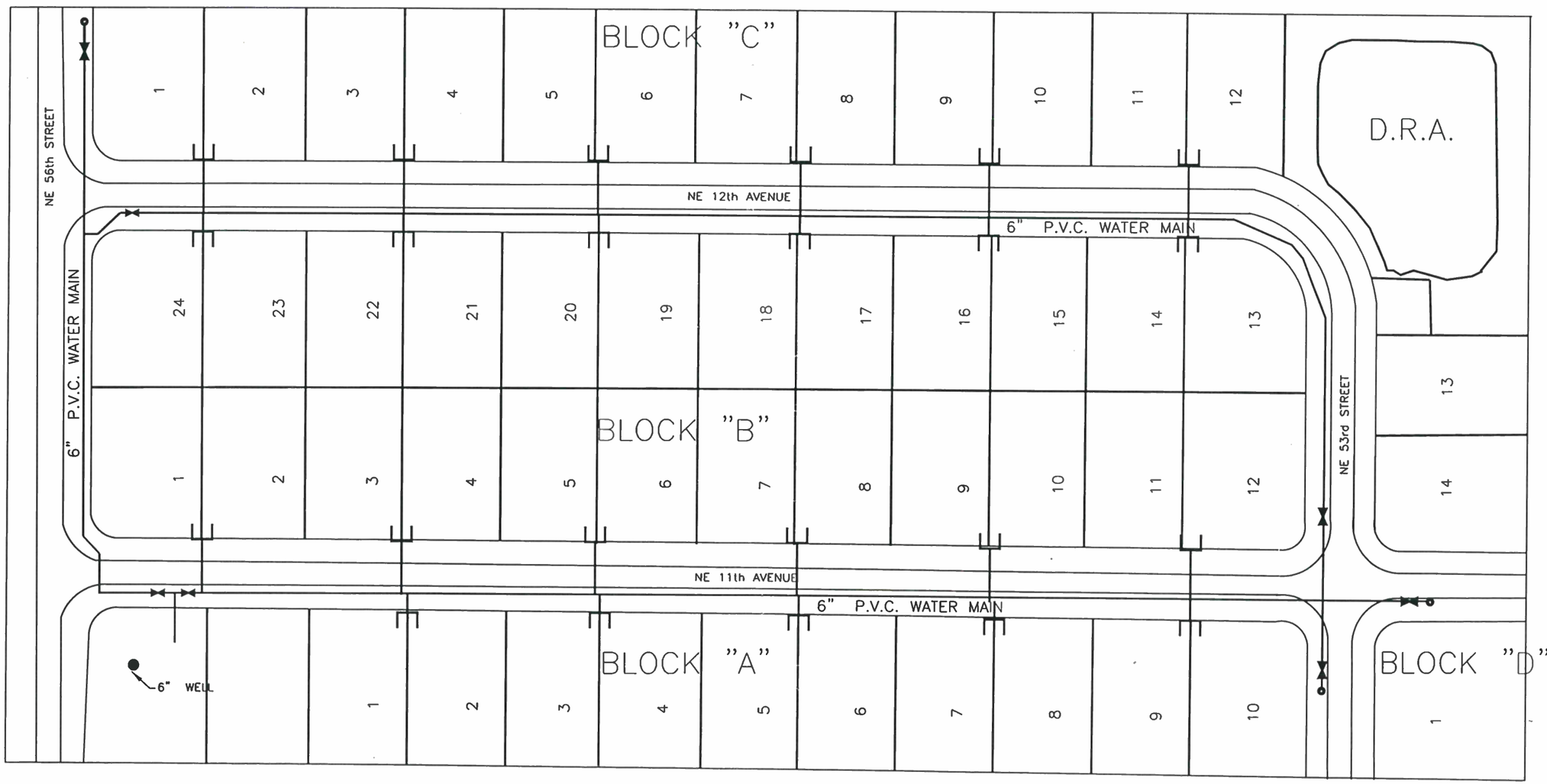
ASHLEY HEIGHTS SUBDIVISON

WATER DISTRIBUTION SYSTEM

NOTE: THIS PLAN REPRESENTS A COMPILATION OF ENGINEERING PLANS AND SPECIFICATIONS FROM THE FILES OF SUNSHINE UTILITIES, INC.

LEGEND

- 6" P.V.C. EXISTING WATER MAIN &SIZE
- WELL LOCATION
- 6" GATE VALVE
- BLOW-OFF VALVE
- SINGLE SERVICE
- DOUBLE SERVICE



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0 50 100 200 400

Scale: 1" = 100'

H.W. BARRINEAU & ASSOCIATES, INC.
8100 SOUTHEAST 17TH ST., SUITE 208
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ASHLEY HEIGHTS
SUNSHINE UTILITIES INC.
OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9636-02

1

Sheet 1 Of 1

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COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Belleview Oaks Estates

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800.426.4262

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COMMITMENT & INTEGRITY DRIVE RESULTS

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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Belleview Oaks Estates. A summary of the main parameters for the water system are summarized below in Table 1-1.

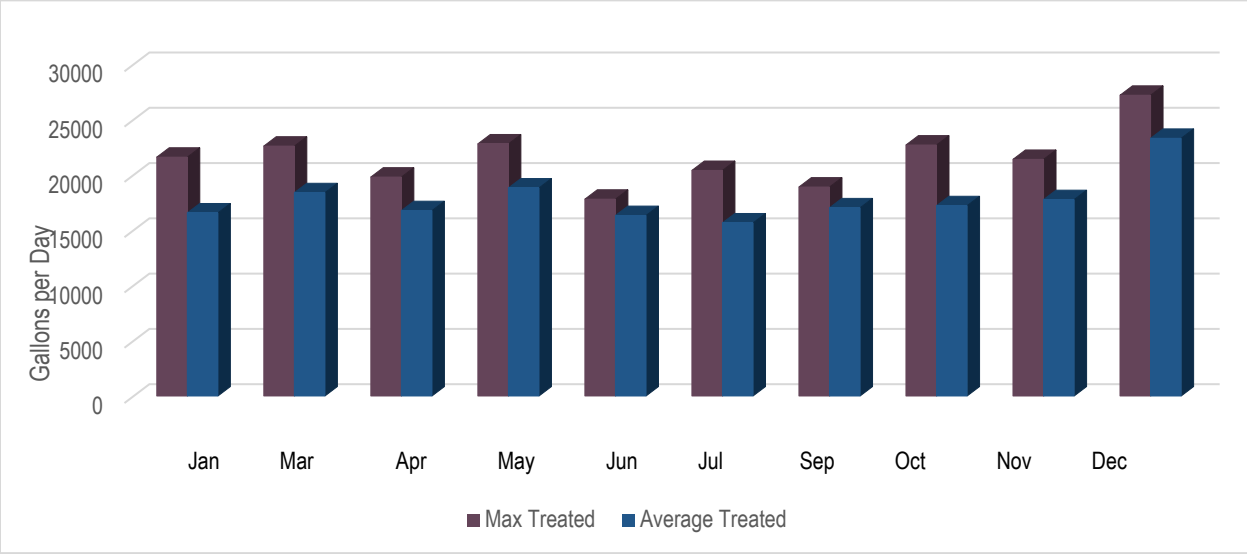
Table 1-1: Belleview Oaks Estates System Information

Water System Name	Belleview Oaks Estates
PWD ID Number	3424621
Classification	Community
Plant Category & Class	5D
Street Address	CR 25A & SE 76th Avenue
City, State	Belleview, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	294 (Sanitary Survey)
Number of Service Connections	84 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	17,780 GPD (2019 Monthly Reporting)
Maximum Day Water Use	27,200 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	147,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Belleview Heights community is depicted in Figure 1-1.

Figure 1-1: Belleview Oaks Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 through a 3-inch swing check valve into a 2,000-gallon steel hydro pneumatic tank. The well pump turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and normally flows through a 3-inch flow meter and out to the distribution system. At the time of the inspection, the flow meter was not working, and Sunshine Utility installed a temporary tube to bypass flow.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	160 feet deep, 150 GPM	1983 (Sanitary Survey)	Fair
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	2,000 gallons, Steel	Approx. 1988 (Tank Inspection Report)	Poor

2.1.1 Source

The Belleview Oaks Estates well is located within a locked fenced in area and is located roughly 20 feet from SE 76th Avenue. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 160 feet deep with one submersible 150 GPM pump with a 10 hp motor at 230 Volts.

There is a check-valve on the discharge of the well pipe with a screen that is used as the air vent, and a sample tap.

There is one potential source of contamination within a 1000-foot radius of the well. The potential contaminant source is a petroleum storage tank and is listed as a low concern level by FDEP. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydro pneumatic tank. The chlorine mix is 1:4 of 10.5% chlorine to water and is housed in two 50-gallon drums located outdoors, one is used for mixing the chlorine and the other drum is used for storage. The chlorine pump is a diaphragm 12 GPD Uni-Dose, set at 60% stroke. The average distribution residual in 2019 was 0.8 mg/L. The chemical metering pump at Belleview Oaks Estates is shown in Table 2-2.

The chlorine pump will turn on when the pump is energized, and the chemical pump outlet is wired to the well pump starter.

Table 2-2: Belleview Oaks Chemical Metering Pumps

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Uni-Dose
Model	U021-2811TT
Size	0.50 GPH

Figure 2-2: Chemical Treatment

2.1.3 Storage

The Belleview Oaks water treatment plant has a 2,000-gallon hydropneumatic storage tank on-site, shown in Figure 2-3. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed, and a drain gate valve located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The sight tube is installed so that the top of the tube is in the middle of the tank and the working volume is typically at the ¾ mark of the tank, so the tank water level is not visible. The pressure gauge in the tank had water in the casing and was

reading a pressure of 50 psi. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup. During the inspection, rust was observed on the exterior of the tank.

The most recent inspection on the storage tank was performed by Enviro-Tech in November 2018 and stated that the tank exterior was in overall good condition and the interior of the tank appeared to be in poor condition. The tank interior had significant areas with no coating and corrosion noted throughout the floor and walls of the interior. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-3: Storage Tank

2.1.4 Pump Station Building

The Belleview Oaks treatment plant has no building on-site. The well, tank, and chemical treatment is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years, however Sunshine Utility's 2018 and 2017 Consumer Confidence reports did report more than one-half of the allowable limits of nitrates. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on March 30, 2020 and the report stated that no deficiencies were noted at the time of inspection. Please refer to Appendix E for the Sanitary Survey Report. The plant received two violations in the past ten years related to Disinfection By-products Monitoring and Reporting on November

20, 2018, and the plant returned to compliance on November 26, 2018. Additionally, the plant had no bacteria detected during monthly sampling in 2019.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-4), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-4: Belleview Electrical Box

2.3.2 Source of Supply

The plant's original well was collapsed back in the 1980's, and the well casing is capped and still located onsite, shown in Figure 2-5. This should be plugged by filling with grout from bottom to top per FL Administrative Code 40D-3.531.

Figure 2-5: Collapsed Well

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 50-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005.

In order to install secondary containment for the chemical storage, a structure will have to be installed to protect the secondary containment from filling with rainwater. In addition, a structure around the chemical drums will offer an added protection from damage. This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-6.

Figure 2-6: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The system has a broken 3-inch Kent meter on the discharge side of the pressure tank, which is read by the operator and manually recorded. The broken flow meter is inhibiting flow so there is a temporary by-pass tubing setup, shown in Figure 2-7. The broken meter should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

Figure 2-7: Bypass Tubing

The hydropneumatic tank inspection report noted the tank interior to be in poor condition, with significant areas where the no coating was present. Corrosion was also noted throughout the interior walls. There was also observed rust on the tank exterior, see Figure 2-8. The tank is over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

Figure 2-8: Rust on Storage Tank

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1983 and supplies water using a 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed and has plugs at dead ends. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system, and Appendix G for the As-Built plans.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. There does not appear to be any blow-off points. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution system map does not show any flush points in the system but does have plugs located on dead-ends. The plugs on the end of the system at the intersection of S.E. 112th Lane and S.E. 74th Avenue and the dead end at the plug at the end of Country Road 25 A should be replaced with flush points. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Belleview Oaks to normal operating conditions are summarized with cost estimates in Tables 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Belleview Oaks Estates is: **$31,200.**

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$15,000
Mission Monitoring at Well	$10,000
Total	$26,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Replace Distribution Meter	$3,500
Total	$5,200

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Belleview Oaks to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-6.The total cost estimate for Capital Improvements at Belleview Oaks Estates is: **$76,500.**

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Plug Abandoned Well	$4,000
Total	$4,000

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$5,000
Total	$16,500

Table 4-5: Water Distribution System Capital Improvements

Recommendation	Estimate
Install Blowoff Valves	$4,000
Automatic Flushing Unit	$27,000
Total	$31,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repair	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

BELLEVIEW OAKS ESTATES
CR25A & SE 76TH AVE.
BELLEVIEW, FL 32620

Public Water System ID: 3424621
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 294
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5942	BELLEVIEW OAKS ESTATES WELL#1	AAE0255	ACTIVE	Not Available	Floridan Aquifer

Results:

GROUND WATER:

Number of Unique Potential Contaminant Sources: 1

Facility Type	Facility Class	Status	Name	Affected Well	Susceptibility Score	Concern Level
PETROLEUM STORAGE TANK	RETAIL STATION	OPEN	CIRCLE K #2722901	5942	8.33	LOW

Last updated: February 19, 2020

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APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

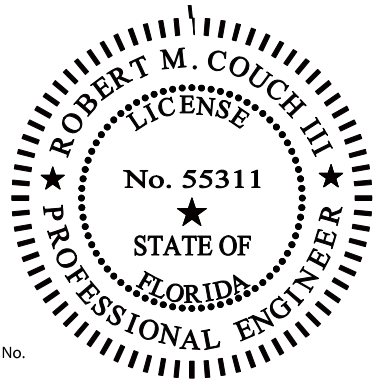
Belleview Oaks Estates Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Belleview Oaks Estates Subdivision
Street Address:	CR 25 & SE 76th Avenue
City, State:	Belleview, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424621
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	November 28, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
15290 SE Highway 42, PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2018.12.19 00:46:15 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on November 28, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 4.22 millimeters. UTM readings from the tank heads indicated an average thickness of 7.74 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. There was no coating on significant areas of the tank interior and corrosion was noted on the tank floor and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 46 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 11'-11" (13'-5" including elliptical heads)
Diameter: 5'-3" outside diameter
Volume: 2,000 gallons with elliptical heads
Tank Age: Approximately 30 yrs
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

Dry film thickness readings were not taken during the interior inspection as the interior tank coating was missing from the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 57 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 4.22 millimeters in the cylindrical section and 7.74 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in poor condition. There were significant areas with no coating present on the interior tank surface. There was corrosion noted throughout the floor and walls of the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 4.22 mm / (796 mm+0.6 x 4.22 mm)
= 0.317 MPa
= 46 psi

When:

t < 0.5R = 0.5 x 796 = 398 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 4.22 mm
R = inside radius of shell course under consideration (mm) = 796 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 46 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Belleview Oaks Estates subdivision 2,000-gallon hydropneumatic pressure tank was performed on November 28, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was no interior coating present.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed surface corrosion throughout the entire interior of the tank.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

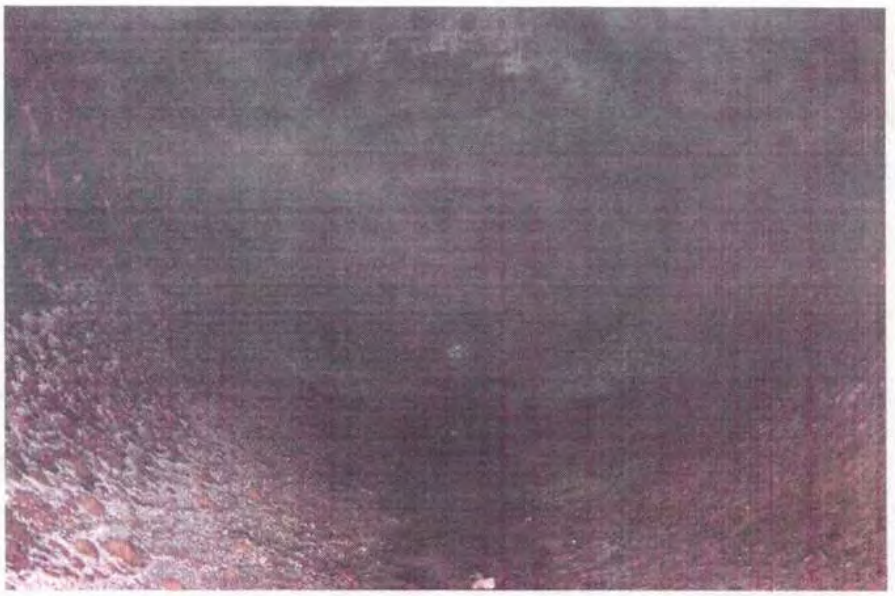
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 46 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 12/19/2018

Robert M. Couch III, P.E. Registration No. 55311

External and internal views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

Belleview Oaks

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	88
PWS:	3424621
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 160 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	25741 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	45 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424621**	
System name and address	**Belleview Oaks**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**11260 SE 76th Ave**	
Population served and service connections.	Population =	Connections = 88
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	25741 GPD
Maximum Daily Demand (gpd)	29300 GPD
System Capacity (gpd)	147000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	SE 76th Ave			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	160 FT			
Well Yield (gpd)	259200 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	15 HP			
Phase	3			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Belleview Oaks Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424621 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ■ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ■ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1,*** 2019 ***, and ending December 31,*** 2019, to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/24/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Belleview Oaks Estates

Florida Department of Environmental Protection Public Water System ID # 3424621

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Department of Environmental Protection performed a Source Water Assessment on our system to provide information about any potential sources of contamination in the vicinity of our wells. There is one potential source of contamination identified with a low level of concern. The assessment results are available of the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR BELLEVIEW OAKS

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	JUN '18	No	0.6	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	JUN '18	No	0.0041	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	JUN '18	No	2.4	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	JUN '18	No	0.12	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	2.63	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	JUN '18	No	2.3	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	JUN '18	No	6.5	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.7	0.4 - 1.0	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	SEP '18	No	0.52	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.385	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below Which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations for water quality. We are very pleased to report that our water meets all federal and state requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019BelleviewOaks.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 17, 2020

Dewaine Christmas, Owner/Office Manager
Sunshine Utilities of Central Florida
CR 25A & SE 76th Ave.
Belleview, FL 32620
sunshineutl@aol.com

Re: Belleview Oaks Estates
PW Facility ID #3424621
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on March 30, 2020. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Amada Fernandez at 407-897-4159 or via e-mail at Amada.M.Fernandez@FloridaDEP.gov.

Sincerely,

Jill Farris, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

cc: Amada Fernandez and Jill Farris, FDEP
Universal Waters, universalwaters94@yahoo.com

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **BELLEVIEW OAKS ESTATES** County Marion PWS ID # **3424621**
Plant Location CR 25A & SE 76th Ave. Belleview, FL 32620 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352-347-8228
Owner Address 10230 East Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner/Office manager Phone 352-347-8228
This Survey Date 3/30/20 Last Survey Date 3/16/17 Last Compliance Inspection Date 10/16/01

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 147,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 84
Population Served 294 Basis Operator

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit* *Actual* Visit*
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments *Visit must total 0.3 hour/week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 18,694 gpd
Maximum Day (from MORs) 29,300 gpd 01/2020
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 3" Kent
Date Last Calibrated 12/4/18

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☒ Yes	☐ No	☒ N/A
Records	☒ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☒ N/A
Records	☒ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3424621
Date 3/30/20

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0255)			
Year Drilled		1983			
Depth Drilled		160’			
Drilling Method		Rotary drill			
Type of Grout		Neat cement			
Static Water Level		30’			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		80’			
Diameter (outside casing)		6’’			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	N/A			
	Reuse Water	>200’			
	WW Plumbing	>200’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Unknown			
	Model Number	Unknown			
	Rated Capacity (gpm)	150			
	Motor Horsepower	10			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		OK			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		N/A			

COMMENTS _____

PWS ID # 3424621
Date 3/30/20

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Uni-Dose Capacity 12 gpd
Chlorine Feed Rate 100% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.25 Remote 1.21
Remote tap location 7415 SE 114 Ln.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	2,000	
Material	Steel	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	Yes	
PRV/ARV	Both	
Pressure Gauge	Yes	
On/Off Pressure	40/60	
Access Secured	Yes	
Access Manhole	Yes	
Tank Sample Tap Location	Discharge piping	
Date of Inspection	11/18	
Date of Cleaning	11/18	

Comments

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

No deficiencies were noted at the time of the inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2020 results have not been received. Early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2020, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2020.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

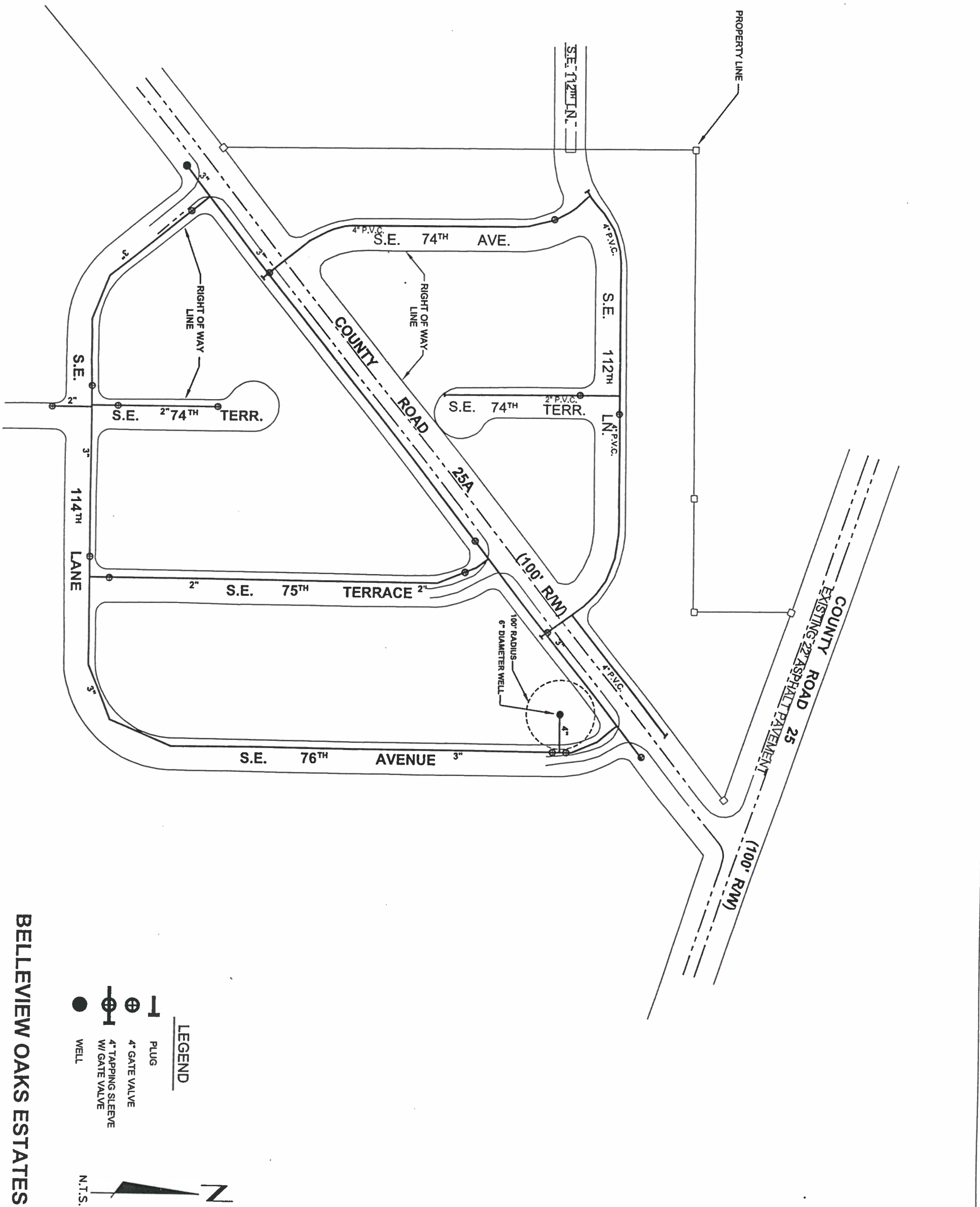
- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

amada fernandez	
Inspector Signature	*Reviewer Signature*
Amada Fernandez	Jill Farris
Printed Name	*Printed Name*
Environmental Specialist II	Environmental Manager
Title	*Title*
4/13/20	4/16/20
Date	*Date*

APPENDIX F: DISTRIBUTION MAP



BELLEVIEW OAKS ESTATES

DRN	CHK	DATE	DESCRIPTION
SAO	RJW	14 JUL 99	ORIGINAL ISSUE

Project No. 9636-02

1

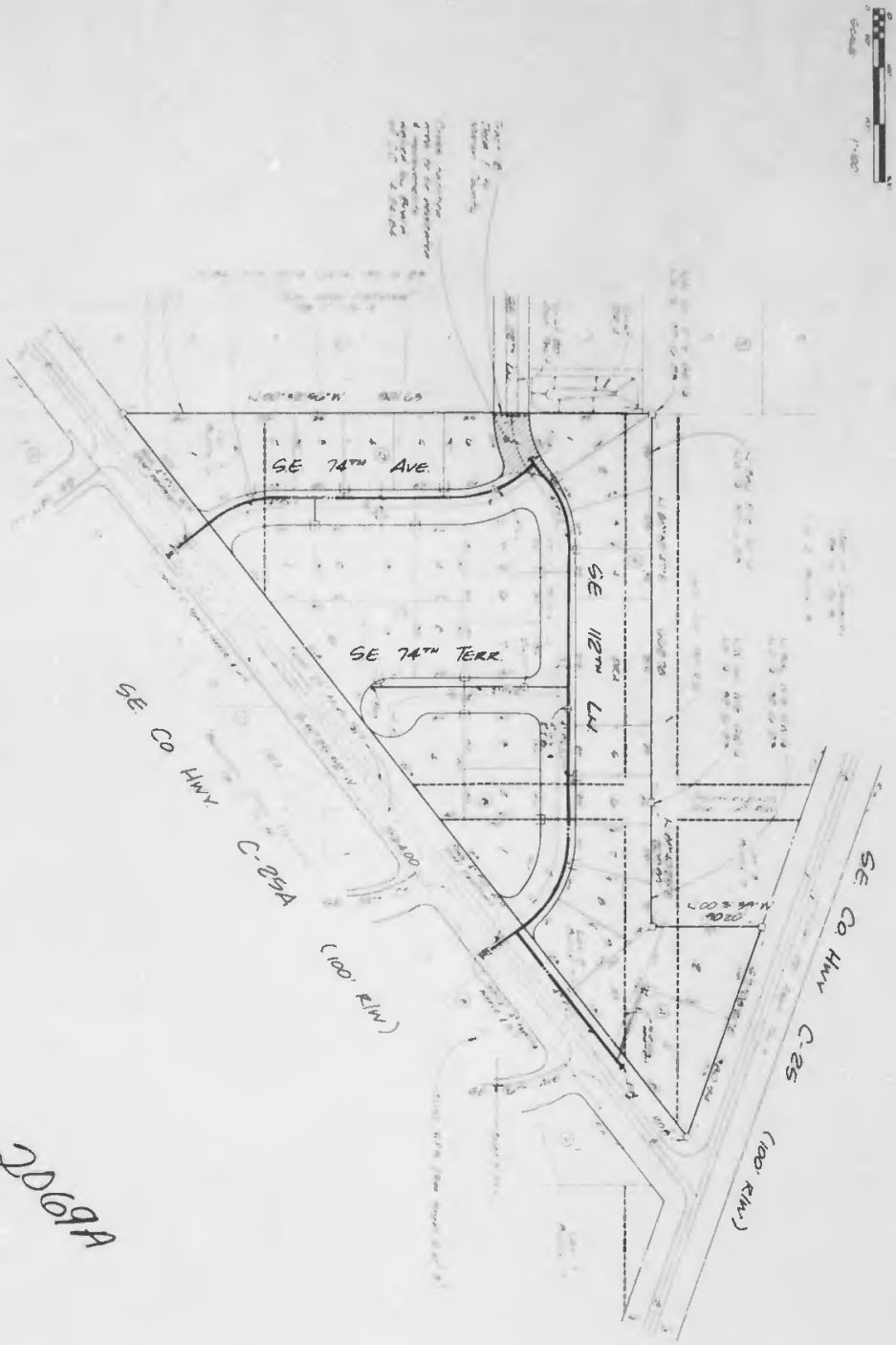
FACILITY WATER SYSTEM

BELLEVIEW OAKS ESTATES
SUNSHINE UTILITIES
BELLEVIEW, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST, SUITE 802
OCALA, FLORIDA 34471
FAX (352) 840-9588
(352) 840-9774

APPENDIX G: BELLEVIEW OAKS ESTATES AS-BUILT

FIELD BOOK(S) 88 PAGE(S) 4 DATE OF SURVEY October 25, 1988



WC-42-2069A

LEGEND:

⊕	Centerline
R/W	Right of Way
WM	Water Main
GV	Gate Valve
BV	Blow-off
FH	Fire Hydrant
PVC	Polyvinyl Chloride
DIP	Ductile Iron Pipe
LF	Linear Feet
LS	Lump Sum
EA	Each
—C—	Gate Valve
—M—	Single Water Service
—DM—	Double Water Service
WTP	Water Treatment Plant
SITE	Site
OCALA	Ocala
OCEOLA	Okeechobee Eight-of-Way
OCE 2	Department of Environmental Regulation

NOTES:

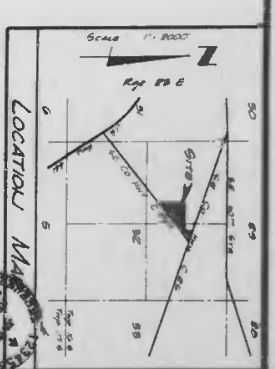
1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]

DESCRIPTION:

A portion of the Northeast 1/4 and the Northwest 1/4 of Section 12, Township 16 South, Range 21 East, Marion County, Florida, being more particularly described as follows:

BEGINNING at the intersection of the Southerly right-of-way of S.E. County Highway 25 (A.K.A. U.S. 441, 27) (100 feet wide, with the Northeasterly right-of-way of S.E. County Highway 25A (100 feet wide, with the Northeasterly right-of-way of S.E. County Highway 25A, 1440.00 feet to the West boundary of the Southeast 1/4 of the Northwest 1/4 of the Northwest 1/4 of Aforesaid Section 12; thence N.00°34'W., along said West boundary, 1020.1 feet to the Northwest corner of said Southeast 1/4 of the Northwest 1/4 of the Northwest 1/4; thence N.89°42'E., along the North boundary of said East 1/2, 661.78 feet to the Northwest corner of the West 1/2 of the Southeast 1/4 of the Northwest 1/4 of said Section 12; thence S.00°31'E., along the West boundary of said West 1/2, 1318.28 feet to the aforesaid Southerly right-of-way of S.E. County Highway 25; thence S.71°49'11"W., along said Southerly right-of-way, 1284.01 feet to the POINT OF BEGINNING.

Containing 13.241 acres more or less.



APPROVED
WC-42-2069A
WATER SYSTEM
JUN 15 1989

SHEET 1 OF SHEETS 3

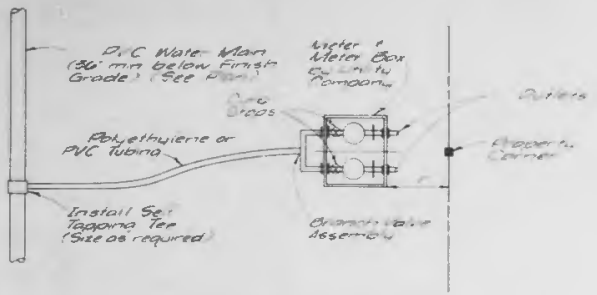
WATER DISTRIBUTION SYSTEM

BELLEVIEW OAKS ESTATES
UNIT NO. 2
CLASS "A" GROUP I SUBDIVISION
MARION COUNTY, FLORIDA

	BY	DATE

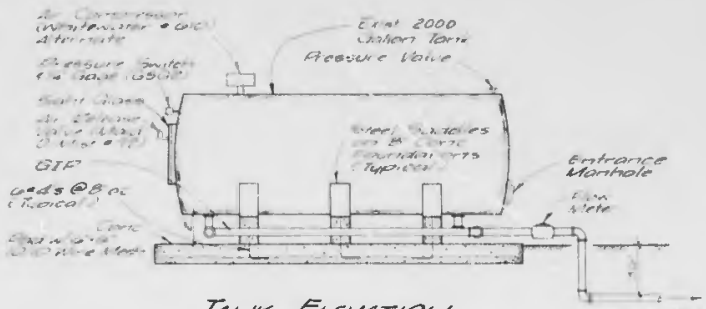
SCALE	1" = 200'
DRAWN BY	A.G.
CHECKED BY	J.C.L.
PROJECT NO.	88-10
FILE NO.	6-4

CARBAUGH & ASSOCIATES
ENGINEERS • SURVEYORS
2801 S.W. COLLEGE ROAD SUITE NO. 8
OCALA, FL 32674 TELE (904) 237-2181



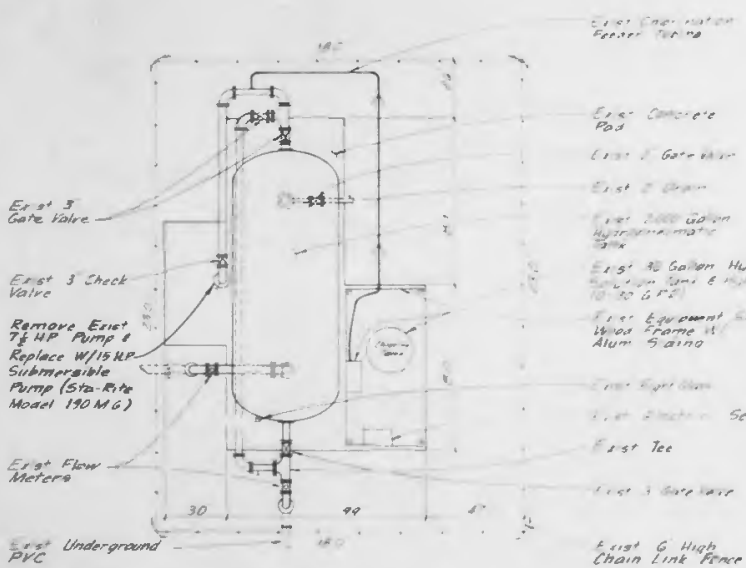
TYPICAL WATER SERVICE CONNECTION

NO SCALE



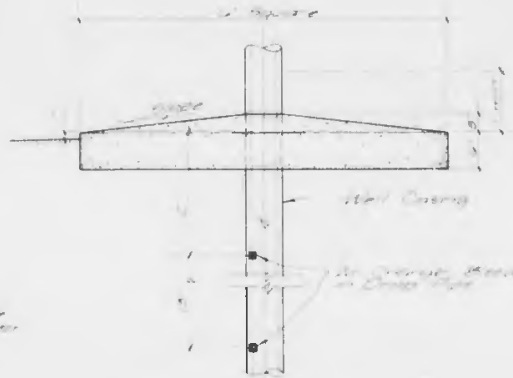
TANK ELEVATION

NO SCALE



EXISTING PNEUMATIC WATER SUPPLY SYSTEM

NO SCALE



WELL PAD DETAIL

NOTES:

1. Well construction, treatment, storage and distribution facilities shall be constructed in accordance with the requirements of the "Rules of the Department of Environmental Regulation (Chapters 17-22 Water Supplies"
2. All equipment shall be installed in accordance with the manufacturers recommendations and local code
3. Chlorinator shall be Chem-Tech, Model D30 0 30 GPD or Approved Equal
4. Chlorinator shall be wired to alternate and run concurrently with well pump
5. The internal coating of the tank shall be AWWA and Environmental Health Service approved
6. The tank shall be painted
7. Flow measurement shall also be by individual lot metering
8. All electrical work shall be accomplished by a licensed electrician in accordance with the National Electrical Code
9. All waterline construction shall be in accordance with the Public Works Manual of Marion County Florida
10. All waterlines shall be installed 7' North or West of street & unless otherwise shown
11. Waterlines shall be installed after rough grading and installation of curbs, and before placement of pavement
12. The waterline contractor shall coordinate his work with the local electric utility
13. All PVC piping must bear the NSF seal for potable water use
14. Water valves and covers shall not be located in pavement unless necessary
15. All dead end lines shall be provided with temporary blow offs which shall be removed after flushing and satisfactory test results
16. The waterline contractor shall locate underground cables and service lines and shall be responsible for any damages incurred to the CATV Permit
17. All materials shall be in accordance with the latest revisions of the Public Works Manual of Marion County (where applicable) or to the extent of State requirements and Quality Control

APPROVED DEC 2 1969 WATER SYSTEM AUG 15 1984

CARBAUGH & ASSOCIATES
ENGINEERS · SURVEYORS
[illegible] ROAD SUITE [illegible]
OCALA, FL. 32670 PH. (904) 237-2[illegible]

DES.	JCL
DRN.	MLA
CHK.	MAC
DATE	6-27-84
SCALE	AS SHOWN
JOB NO.	69-01
SHEET NO.	6

EXISTING WATER SUPPLY SYSTEM

BELLEVIEW OAKS ESTATES

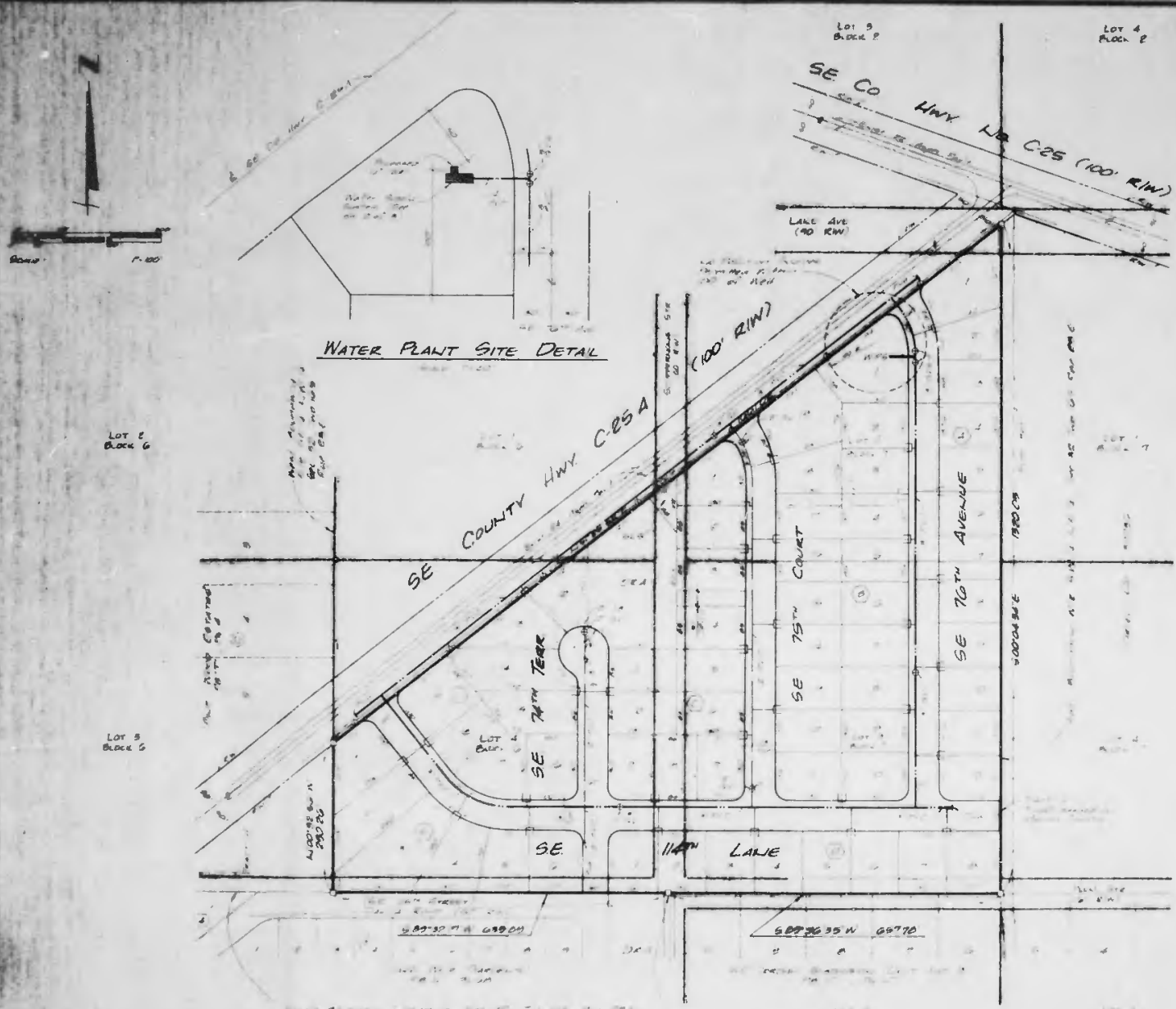
CLASS 'A' GROUP I SUBDIVISION

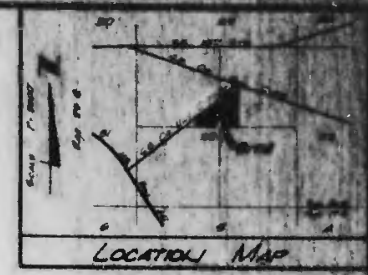
MARION COUNTY, FLORIDA

2

3

FIELD BOOK(S) 68 PAGE(S) 55 DATE OF SURVEY 6-27-84





DESCRIPTION:

The W½ of the SW¼ of the NE¼ and the E½ of the SE¼ of the NW¼, All being in Section 34, Township 16 South, Range 28 East, Marion County, Florida, lying Southeast of County Hwy C-25A

NOTES:

1. Distances on corner lots are the intersection of right-of-way lines extended.
2. All block corner radii are 25' unless otherwise shown.
3. Bearings are based on an assumed meridian.
4. Bold denotes lot lines as per "Map of Clearwater" PB 2, PG 5. Lots and blocks are shown in plain.
5. Boundary survey by James A. Bennett, Jr. PLS #3938, dated May 28, 1981.
6. ... I have no evidence of the Deltona Corporation Unit No 8, PB 12, PG 67, and recorded in the Marion County Commissioner's on 8-16-68, deed book 307, page 580.
7. ... that portion of the "Map of Clearwater" lying within the above cited plat was vacated by ... Board of County Commissioners on 12-7-82

LEGEND

℄	Center line
R/W	Right of Way
R	Radius
W/M	Water Main
GV	Gate Valve
TB	Temporary Blowoff
FH	Fire Hydrant
PVC	Poly vinyl Chloride
D/IP	Ductile Iron Pipe
HP	Hydropneumatic
LF	Lineal Feet
LS	Lump Sum
Ea	Each
	Gate Valve
	Single Water Service
	Double Water Service
WPS	Water Plant Site
SLS	Sewer Lift Station
DRA	Drainage Retention Area
DROW	Drainage Right of Way
DER	Department of Environmental Regulation

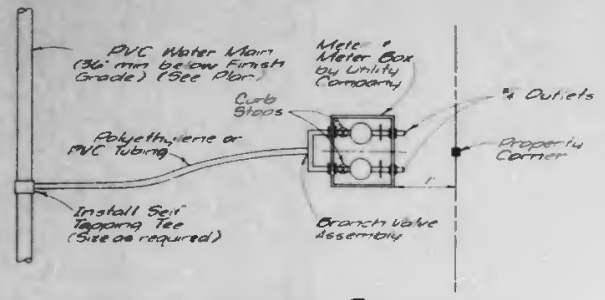
APPROVED
DEC 22 2069
WATER SYSTEM
AUG 18 1987

Will Clark
State

CARRAUGH & ASSOCIATES
ENGINEERS & SURVEYORS

WATER DISTRIBUTION SYSTEM
DELLENEY OAKS ESTATES
Section 34, T16S, R28E
Marion County, Florida

SHEET 1 OF 3



TYPICAL WATER SERVICE COLLECTION

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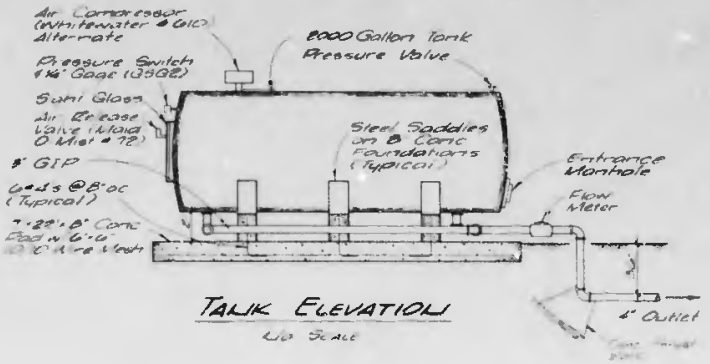

TANK ELEVATION

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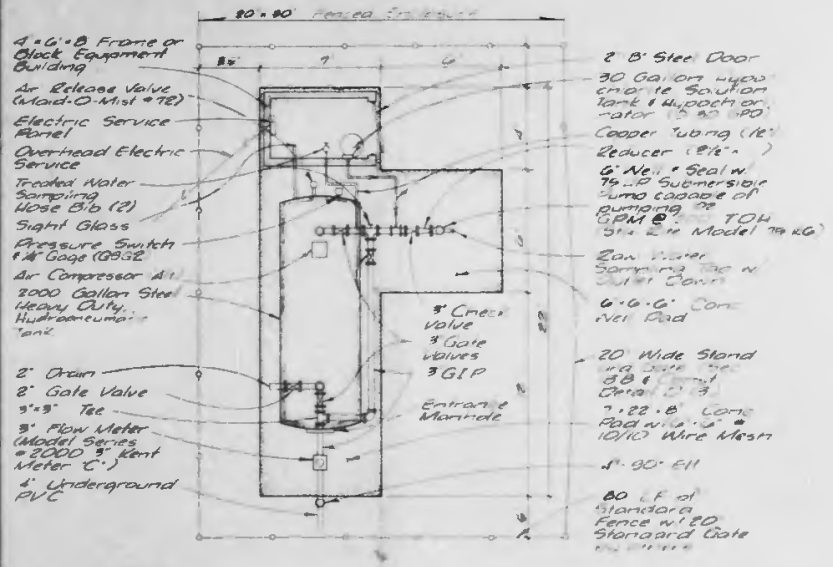

PNEUMATIC WATER SUPPLY SYSTEM PLAN

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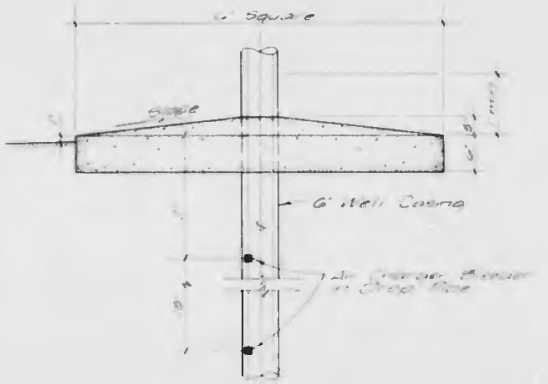

WELL PAD DETAIL

No Scale

NOTES:

1. Well construction, treatment, storage and distribution facilities shall be constructed in accordance with the requirements of the "Rules of the Department of Environmental Regulation" Chapters 17-22, Water Supply
2. All equipment shall be installed in accordance with the manufacturers recommendations and local code
3. Chlorinator shall be Wallace & Tiernan, Model 050 0-30 GPD or Approved Equal
4. Chlorinator shall be designed to alternate and run concurrently with well pumps
5. The internal coating of the tank shall be AWWA and Environmental Health Service approved
6. The tank shall be painted
7. Flow measurement shall also be by individual lot metering
8. All electrical work shall be accomplished by a licensed electrician in accordance with the National Electrical Code
9. All waterline construction shall be in accordance with the Public Works Manual of Marion County Florida
10. All waterlines shall be installed 7' North or West of street ℄ unless otherwise shown
11. Waterlines shall be installed after road grading and completion of culverts, and before placement of pavement
12. The waterline contractor shall coordinate his work with the road contractor
13. All PVC pipe must bear the NSF seal for Potable Water Use
14. Water Valves and covers shall not be located in pavement unless necessary
15. All dead end lines shall be capped with temporary blow-off and shall be capped after flushing and satisfactory test results
16. The waterline contractor shall make pressure tests and obtain satisfactory bacteria samples from locations designated in the DER Permit
17. All materials shall be in accordance with the construction requirements of the "Public Works Manual of Marion County, Florida" only to the extent of Material Requirements and Quality Control
18. The waterline contractor shall perform a satisfactory well survey consisting of a minimum of 30 samples in accordance with DER requirements and shall obtain primary and secondary chemical water analysis and gross alpha
19. All completion reports, well drilling and water analysis shall be submitted to the project engineer prior to construction of the Water Supply System by the waterline contractor

DEC 2 2009
WATER SYSTEM
AUG 16 2013
STATE OF FLORIDA

FIELD BOOK
DATE OF SURVEY

CABLEVISION
DO NOT DIG

BELLEVIEW OAKS ESTATES
Home Supply System
Home of Owner / Association
Marion County
2
3

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Country Walk Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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1.2 Water Use 1-2

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4.2 Improvements and Other Repairs 4-1

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Table 4-1: General Plant Triage Repairs
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Table 4-5: Transmission and Distribution System Capital Improvements
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FIGURES

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Figure 2-3: Chlorine Treatment
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Figure 2-5: Broken Distribution Meter
Figure 2-6: Pump Station Building
Figure 2-7: PIG 66-Gallon Tank Enclosure

APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Country Walk. A summary of the main parameters for the water system are summarized below in Table 1-1.

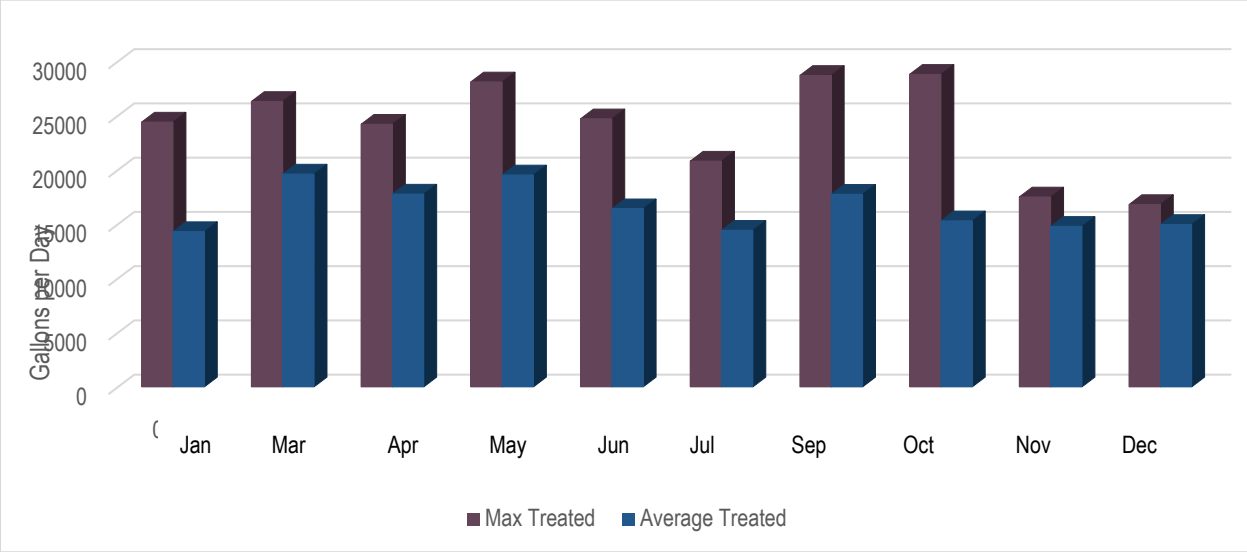
Table 1-1: Country Walk System Information

Water System Name	Country Walk
PWD ID Number	3424657
Classification	Community
Plant Category & Class	5D
Street Address	6036 SE 122nd Lane
City, State	Belleview, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	189 (Sanitary Survey)
Number of Service Connections	65 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	16,457 GPD (2019 Monthly Reporting)
Maximum Day Water Use	28,800 GPD (Sanitary Survey)
Max-Day Design Capacity	132,480 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in Country Walk community is depicted in Figure 1-1.

Figure 1-1: Country Walk Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 though a check valve and a 2-inch Master flow meter and into the 2,000-gallon steel hydropneumatic tank. The well pump turns on when the pressure tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and flows out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	140 feet deep, 150 GPM	1985 (Sanitary Survey)	Fair
Treatment	Disinfection	Sodium Hypochlorite	Unknown	Poor
Storage	Hydropneumatic Tank	2,000 gallons, Steel	Unknown	Poor
Building	CMU	10 by 5.3 Feet	Unknown	Fair

2.1.1 Source

The Country Walk well is located next to the treatment building and tank within a locked fenced in area and is about 30 feet from SE 122nd Ln. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 140 feet deep with one submersible 150 GPM pump, 10 HP motor at 230 Volts and is shown in Figure 2-1. There is a 2-inch Master Meter at the well, shown in Figure 2-2.

There is a check-valve on the discharge of the well pipe with a screen that is used as the air vent, and a sample tap off the top.

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

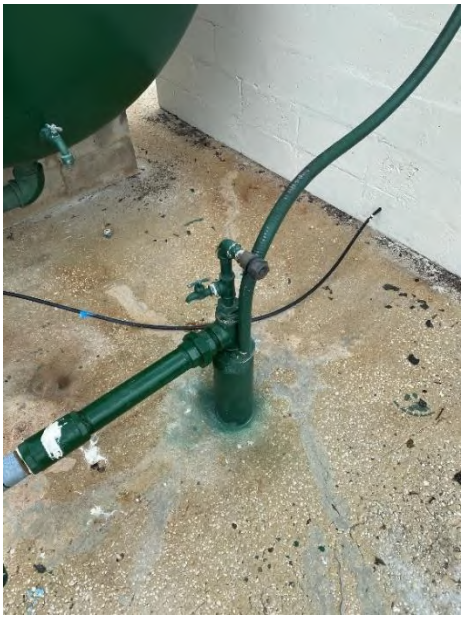


Figure 2-2: Well Meter

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydro pneumatic tank. The chlorine mix is 1:4 of 10.5% chlorine to water and is housed in two 50-gallon drums. One drum is used for mixing and one drum is used for chemical

storage and are located inside the pump station building. The chemical storage tank is shown in Figure 2-3. The chemical pump is a peristaltic 15 GPD Chem-Tech Pump, set at 50% stroke. The average distribution residual in 2019 was 1.3 mg/L. The chemical metering pump at Country Walk is shown in Table 2-2.

The chlorine pump will turn on when the well pump is energized. The chemical pump outlet is wired to the well pump starter.

Table 2-2: Country Walk Chemical Metering Pumps

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Chem-Tech
Model	X015-XA-AAAFXXX
Size	15 GPD

Figure 2-3: Chlorine Treatment

2.1.3 Storage

The Country Walk water treatment plant has a 2,000-gallon hydro pneumatic storage tank on-site, shown in Figure 2-4. The tank is plumbed with 3-inch isolation butterfly valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector

on the sight tube to inject air if needed as a backup. There is a broken 3-inch meter after the tank, shown in Figure 2-5.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in November 2018 and stated that the tank exterior appeared to be in fair condition, but the interior coating was in poor condition with significant areas with no coating and corrosion noted throughout the tank interior. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-4: Storage Tank

Figure 2-5: Broken Distribution Meter

2.1.4 Pump Station Building

The pump station building is a 10 by 5.3-foot CMU building with a wooden roof primarily used for storage of the chlorine mixing, injection tank, and facility logbook. The building has no door but has an opening with a width of 40 inches. The building had no evidence of roof leaks or rodents, but the open door provides no containment for spills or protection from weather, rodents and insects. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

Figure 2-6: Pump Station Building

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on March 30, 2020 and stated that no deficiencies were noted during the inspection. Please refer to Appendix E for the Sanitary Survey Report. In addition, no compliance

issues or violations were observed in the Florida Department of Environmental Protection information portal in the last ten years.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The system has a 2-inch Master meter after the well and a broken 3-inch meter on the discharge side of the pressure tank. The broken meter should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 50-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. Given the tight space in the building, the additional secondary containment will likely need to move outside. This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-5. Containment pallets are cost effective and available through multiple suppliers.

Figure 2-7: PIG 66-Gallon Tank Enclosure

The hydropneumatic tank inspection report noted the tank interior to be in poor condition, with significant areas where the no coating was present. Corrosion was also noted throughout the interior walls. The tank is likely over fifteen years old and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1985 and supplies water using 2 to 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed, but no blowoff valves were indicated on the distribution map. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes, and each home as its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution system map does not show any flush points in the system and the map is difficult to read to see if there are any dead-end plugs. Blow off valves should be installed at the end of S.E. 123rd Lane, S.E. 122nd Lane, and along the bottom of S.E. 124th Lane.

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Country Walk to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Country Walk is: **$62,700**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$50,000
Mission Monitoring at Well	$10,000
Total	$61,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Total	$1,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Country Walk to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-6 The total cost estimate for Capital Improvements at Country Walk is: **$74,000**.

.

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$3,500
Total	$3,500

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$5,000
Total	$16,500

Table 4-5: Transmission and Distribution System Capital Improvements

Recommendation	Estimate
Automatic Flashing Unit	$27,000
Install Blowoff Valves	$4,000
Total	$31,000

Table 4-6: General Plant Capital Improvement

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

COUNTRY WALK
SE 60TH TERR & SE 60TH AVE
BELLEVIEW, FL 34420

Public Water System ID: 3424657

Previously Known As:
COUNTRY WALK S/D

County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 189
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5989	4	AAE0261	ACTIVE	140	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Exit Disclaimer
Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

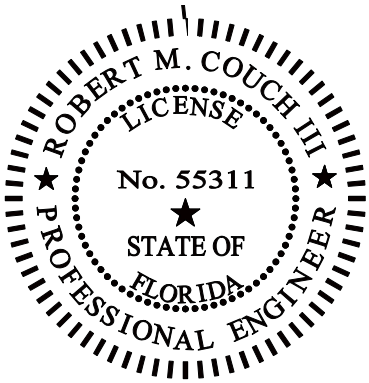
Country Walk Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Country Walk Subdivision
Street Address:	SE 60th Terrace & SE 60th Avenue
City, State:	Belleview, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424657
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	November 28, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
15290 SE Highway 42, PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2018.12.19 00:58:30 -05'00'

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11.0 RECOMMENDATIONS. 19

1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on November 28, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 4.26 millimeters. UTM readings from the tank heads indicated an average thickness of 7.89 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. There was no coating on significant areas of the tank interior and corrosion was noted on the tank floor and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 46 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 11'-11" (13'-5" including elliptical heads)
Diameter: 5'-3" outside diameter
Volume: 2,000 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

Dry film thickness readings were not taken during the interior inspection as the interior tank coating was missing from significant portions of the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 49 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 4.26 millimeters in the cylindrical section and 7.89 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in poor condition. There were significant areas with no coating present on the interior tank surface. There was corrosion noted throughout the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 4.26 mm / (796 mm+0.6 x 4.26 mm)
= 0.320 MPa
= 46 psi

When:

t < 0.5R = 0.5 x 796 = 398 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 4.26 mm
R = inside radius of shell course under consideration (mm) = 796 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 46 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Country Walk subdivision 2,000-gallon hydropneumatic pressure tank was performed on November 28, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was no interior coating present on significant portions of the interior.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed surface corrosion throughout significant portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

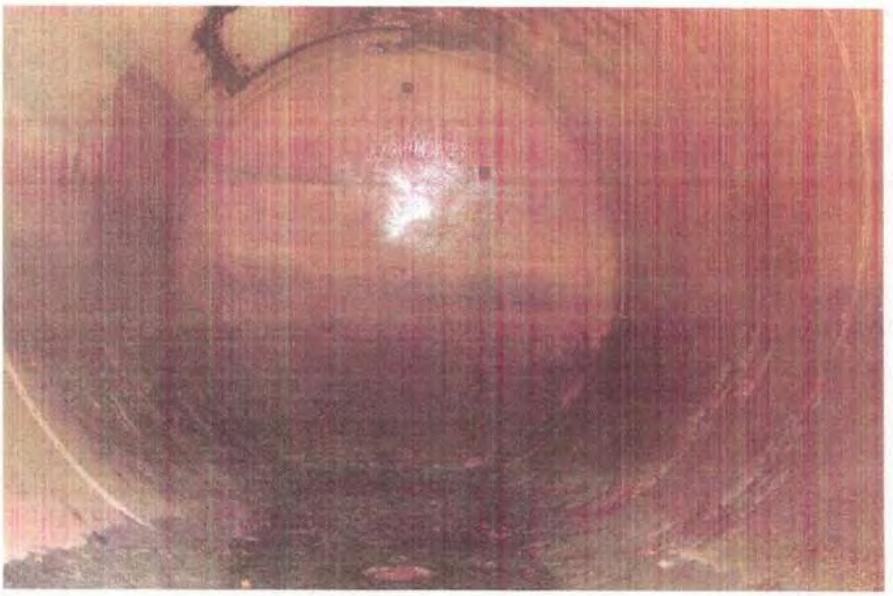
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 46 psi until the next 5 year inspection cycle and provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 12/19/2018

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities
COUNTRY WALK

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	68
PWS:	3424657
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
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e-mail: FRWA@frwa.net

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C. .....Plan Approval 19

This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 140 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	14116 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424657**	
System name and address	**Country Walk**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**6036 SE 122nd Ln**	
Population served and service connections.	Population =	Connections = 68
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	14116 GPD
Maximum Daily Demand (gpd)	16300 GPD
System Capacity (gpd)	132480 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	SE 122nd Ln			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	140 FT			
Well Yield (gpd)	132480 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	5 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Country Walk Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424657 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Country Walk

Florida Department of Environmental Protection Public Water System ID # 3424657

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019, Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR COUNTRY WALK

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAR '18	No	1.1	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAR '18	No	0.0052	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	MAR '18	No	1.7	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	MAR '18	No	0.13	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Lead (point of entry)	(ppb)	MAR '18	No	0.3	N/A	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	3.78	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	MAR '18	No	2.6	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	MAR '18	No	6.6	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.2	0.8 - 1.8	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	SEP '18	No	1.55	N/A	N/A	MCL = 60	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.305	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019CountryWalk.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 17, 2020

Dewaine Christmas, Owner/Office manager
Sunshine Utilities of Central FL, Inc.
SE 60th Terrace & 60th Ave.
Belleview, FL 34420
sunshineutl@aol.com

Re: Country Walk
PW Facility ID #3424657
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on March 30, 2020. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Amada Fernandez at 407-897-4159 or via e-mail at Amada.M.Fernandez@FloridaDEP.gov.

Sincerely,

Jill Farris, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

cc: Amada Fernandez and Jill Farris, FDEP
Universal Waters, universalwaters94@yahoo.com

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **COUNTRY WALK** County Marion PWS ID # **3424657**
Plant Location SE 60th Terrace and 60th Avenue, Belleview, FL 34420 Phone 352-347-8228
Owner Name Sunshine Utilities of Central FL, Inc.; Attn: Dewaine Christmas Phone 352-347-8228
Owner Address 10230 East Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner/Office manager Phone 352-347-8228
This Survey Date 3/30/20 Last Survey Date 3/16/17 Last Compliance Inspection Date 10/15/01

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 132,480 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 65
Population Served 189 Basis Operator

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit* *Actual* Visit*
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments *Visit must total 0.3 hour/week

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 16,457 gpd
Maximum Day (from MORs) 28,800 gpd 10/2019
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Master
Date Last Calibrated 12/4/18

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☒ N/A
Emergency Response Plan	☒ Yes	☐ No	☒ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☒ Yes	☐ No	☒ N/A
Records	☒ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☒ N/A
Records	☒ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3424657
Date 3/30/20

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0261)			
Year Drilled		1985			
Depth Drilled		140’			
Drilling Method		Combination			
Type of Grout		Neat cement			
Static Water Level		60’			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		105’			
Diameter (outside casing)		4’’			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	N/A			
	Reuse Water	>200’			
	WW Plumbing	>200’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Unknown			
	Model Number	Unknown			
	Rated Capacity (gpm)	150			
	Motor Horsepower	10			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		OK			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		N/A			

COMMENTS _____

PWS ID # 3424657
Date 3/30/20

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 15 gpd
Chlorine Feed Rate 100% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.67 Remote 1.43
Remote tap location 12473 SE 62nd Ave.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms:			
Loss of Cl_2 capability	☐	☐	
Loss of Cl_2 residual	☐	☐	
Cl_2 leak detection	☐	☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	2,000	
Material	Steel	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	Yes	
PRV/ARV	PRV	
Pressure Gauge	Yes	
On/Off Pressure	40/60	
Access Secured	Yes	
Access Manhole	Yes	
Tank Sample Tap Location	On tank	
Date of Inspection	1/19	
Date of Cleaning	1/19	

Comments

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

No deficiencies were noted at the time of the inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2020 results have not been received. Early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2020, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2020.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the

Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

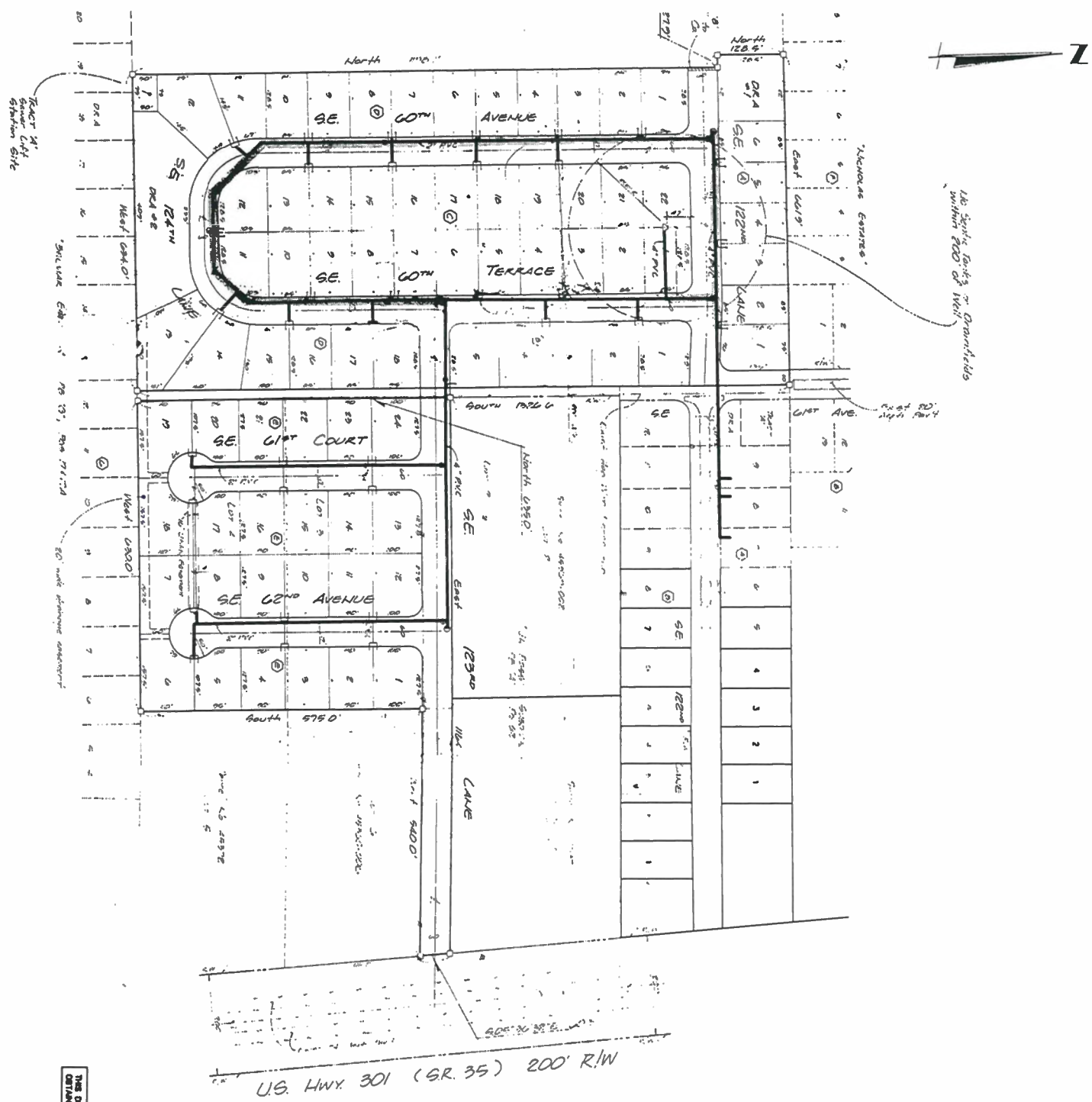
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

amada fernandez	
Inspector Signature	*Reviewer Signature*
Amada Fernandez	Jill Farris
Printed Name	*Printed Name*
Environmental Specialist II	Environmental Manager
Title	*Title*
4/13/20	4/16/20
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

0 100 200 300 600

Scale: 1"= 300'



THIS DRAWING IS A COPY OF AN ORIGINAL OBTAINED FROM SUNSHINE UTILITIES, INC.

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 636-02

1

Sheet 1 OF 1

COUNTRY WALK

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.

2100 SOUTHEAST 17th ST, SUITE 502
OCALA, FLORIDA 34471

FAX (352) 840-9598
(352) 840-9774

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Eleven Oaks Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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Figure 1-1: Eleven Oaks Average Water Use 2019
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Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Eleven Oaks Subdivision. A summary of the main parameters for the water system are summarized below in Table 1-1.

Table 1-1: Eleven Oaks System Information

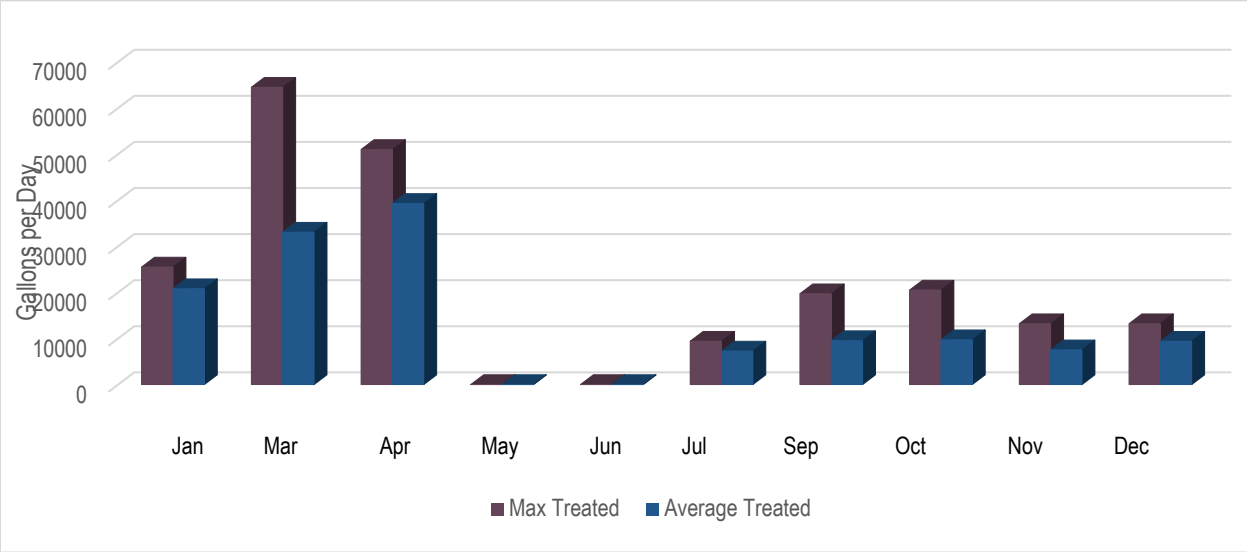
Water System Name	Eleven Oaks
PWD ID Number	3424099
Classification	Community
Plant Category & Class	5D
Street Address	2767 NE 60th Lane
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	126 (Sanitary Survey)
Number of Service Connections	36 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	17,074 GPD (2019 Monthly Reporting)
Maximum Day Water Use	65,500 GPD* (2019 Monthly Reporting)
Max-Day Design Capacity	39,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

*The system exceeded the max day capacity in February and March 2019. The cause is not known.

1.2 Water Use

Potable water usage in the Eleven Oaks community is depicted in Figure 1-1.

Figure 1-1: Eleven Oaks Average Water Use 2019



Source: 2019 Monthly Operating Reports
Flow meter was not working from March 16th to July 16th, 2019.

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 through a check valve and two screen strainers into a 2,000-gallon steel hydropneumatic tank. The well pump turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Prior to entering the tank chlorine is injected for disinfection and polyphosphate (Aqua Gold) is injected for iron sequestration. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and flows through a 3-inch Kent flow meter and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	200 feet deep, 55 GPM	1981 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Treatment	Corrosion Control	Aqua Gold	Unknown	Poor
Storage	Hydropneumatic Tank	2,000 gallons, Steel	Approx. 2003 (Tank Inspection Report)	Poor

2.1.1 Source

The Eleven Oaks well, shown in Figure 2-1, is located next to the tank within a locked fenced in area and is located roughly 80 feet down a tight dirt road as shown in Figure 2-2. The top of the well casing is about 6 inches above grade and within a concrete pad. The well is 200 feet deep with one submersible Sta-Rite 55 GPM pump, 3 HP motor, and 230 Volts. The well pump was recently replaced in 2018. The top of the well head casing is lower than the required 12-inch height. FDEP has noted they will continue to accept the current height unless there is evidence of chemical or microbial contamination.

There is a bleeder vent that is used as the air vent, and a sample tap off the top. The well casing appeared to be in poor condition with missing bolts, and the case exterior was rusted.

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

Figure 2-2: Well and Treatment Access Road

2.1.2 Treatment

Prior to chemical injection, there are two 3-inch screen strainers with flush points, shown in Figure 2-3. Chlorine is injected for disinfection, and the mix is 1:5 of 10.5% chlorine to water. Straight chlorine is housed in a 50-gallon drum and diluted chlorine is housed in a 30-gallon drum; both are located outside and shown in Figure 2-4. The chlorine pump is a diaphragm 12 GPD Unidose, set at 90% stroke. The average distribution residual in 2019 was 1.0 mg/L.

Phosphate (Aquagold 170) is injected for iron and manganese sequestration. The solution is not diluted and is housed in a 30-gallon drum located outside next to the chlorine treatment. The Aqua Gold pump is a peristaltic 17 GPD Stenner set at 30% stroke. The chlorine and phosphate pumps will turn on when the pump is energized. The chemical pump outlets are wired to the well pump starter. The chemical metering pumps located on site are shown in Table 2-2.

Table 2-2: Eleven Oaks Chemical Metering Pumps

Chemical Pump	Chlorine	Poly Phosphate
Number of Pumps	1	1
Brand	Stenner	Uni-Dose
Model	85MPHP17	U021-281TT
Size	17 GPD	0.5 GPH

Figure 2-3: Screen Strainers

Figure 2-4: Chemical Treatment

2.1.3 Storage

The Eleven Oaks water treatment plant has a 2,000-gallon hydropneumatic storage tank on-site, shown in Figure 2-5. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed, and a drain gate valve located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the tank shell, head, and exterior condition was in overall good condition and the interior of the tank appeared to be in fair condition. The tank interior did have significant areas where the coating had failed on the interior tank surface and there was corrosion noted on the ridge and side walls of the tank interior. There is a steel patch located on top of the tank, apparently applied to address a leak. This patch was added after the 2018 Tank Inspection Report. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-5: Storage Tank

2.1.4 Pump Station Building

The Eleven Oaks treatment plant has no building on-site. The well, tank, and chemical treatment is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

There is heavy vegetation growing around and above the site.

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 13, 2018 and stated that no deficiencies were noted during the inspection. Please refer to Appendix E for the Sanitary Survey Report.

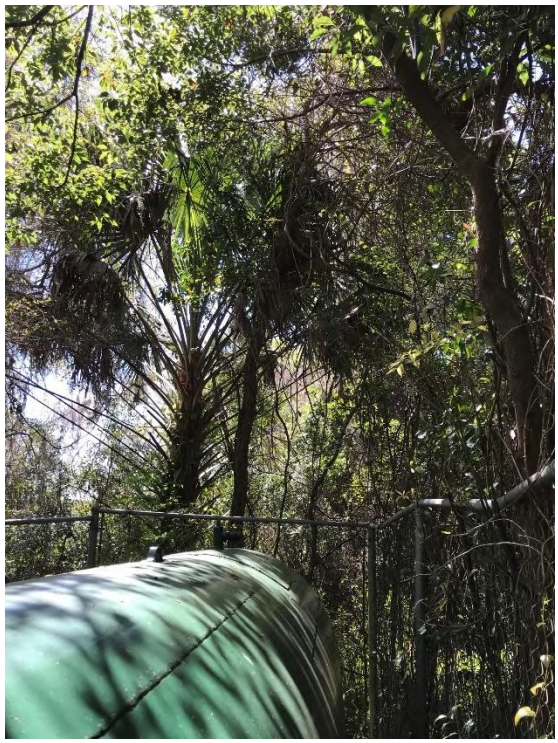
The plant received one violation in the past ten years related monitoring and reporting of the source water in 2014.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

The treatment site has no building or structure around the equipment, and it is located in an area with heavy vegetation. It is recommended the trees and branches above and around the site be cleared, and the growth along the access path be cut back. This will cut down on debris build-up at the site and damage from a fallen tree or branch. A photograph of the vegetation growth is shown in Figure 2-6.

Figure 2-6: Vegetation Growth at Site



There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Source of Supply

The well is in poor condition, with portions of the well exposed to atmosphere. This puts the well at risk of microbial contamination. Figure 2-7 shows a missing bolt that should be replaced to properly seal the well. The Florida Administrative Code 64E-8.005 requires the well to be watertight.

Figure 2-7: Unsealed Wellhead

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental spills into the environment. Currently there are two 30-gallon tanks for chlorine, 30-gallon tank for poly phosphate, a spare poly phosphate 30-gallon tank. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals, and the spare poly phosphate tank should be removed. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. Two tank enclosures can be used to store the chlorine and phosphate, such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-8.

Figure 2-8: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The system has a 3-inch Kent meter on the discharge side of the pressure tank, which is read by the operator and manually recorded. This will have to be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, with significant areas where the coating had failed. Corrosion was also noted in the interior walls. Since the tank inspection was done in 2018, a steel patch has been welded on to the exterior wall to address a leak that had formed. The tank is over fifteen years old, and the interior should be sand blasted and re-coated with a minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1981 and supplies water to four blocks using a 2-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. There does not appear to be any blow-off points in the system. The system supplies water to single homes with mostly double service lines off the water main. Each home as its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution system map does not show any flush points in the system. A flush point should be installed on the north section of NE 25th Avenue. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Eleven Oaks to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Eleven Oaks is: **$31,200.**

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$15,000
Mission Monitoring at Well	$10,000
Clear Vegetation	$2,000
Total	$28,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$3,400
Total	$3,400

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Eleven Oaks to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-5. The total cost estimate for Capital Improvements at Eleven Oaks is: **$74,000**.

Table 4-3: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$5,000
Replace Distribution Meter	$3,500
Total	$20,000

Table 4-4: Transmission and Distribution System Capital Improvements

Recommendation	Estimate
Recommendation	**Estimate**
Automatic Flushing Unit	$27,000
Install Blowoff Valve	$2,000
Total	$31,000

Table 4-5: General Plant Capital Improvements

Recommendation	Estimate
Install Blowoff Valve	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

ELEVEN OAKS SUBDIVISION
BETWEEN NE 60TH LN AND 63RD STREET.
OCALA, FL 34471

Public Water System ID: 3424099
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 136
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5815	4"/200'/194'	AAE0276	ACTIVE	200	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

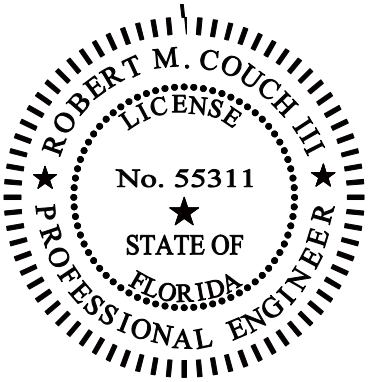
Eleven Oaks Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Eleven Oaks Subdivision
Street Address:	Behind 2749 NE 60th Lane
City, State:	Marion, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424099
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 11, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.01 23:17:54 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 11, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 3.97 millimeters. UTM readings from the tank heads indicated an average thickness of 6.05 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. There were coating failures on significant areas of the tank interior and corrosion was noted on the tank ridge and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 57 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 20'-1" (21'-6" including elliptical heads)
Diameter: 4'-0" outside diameter
Volume: 2,000 gallons with elliptical heads
Tank Age: Approximately 15 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

Dry film thickness readings were not taken as the coating had failed on significant portions of the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 60 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 3.97 millimeters in the cylindrical section and 6.05 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in fair condition, however, there were significant areas where the coating had failed on the interior tank surface. There was corrosion noted on the ridge and side walls of the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 3.97 mm / (606 mm+0.6 x 3.97 mm)
= 0.392 MPa
= 57 psi

When:

t < 0.5R = 0.5 x 606 = 303 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 3.97 mm
R = inside radius of shell course under consideration (mm) = 606 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Eleven Oaks subdivision 2,000-gallon hydropneumatic pressure tank was performed on December 11, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already failed.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

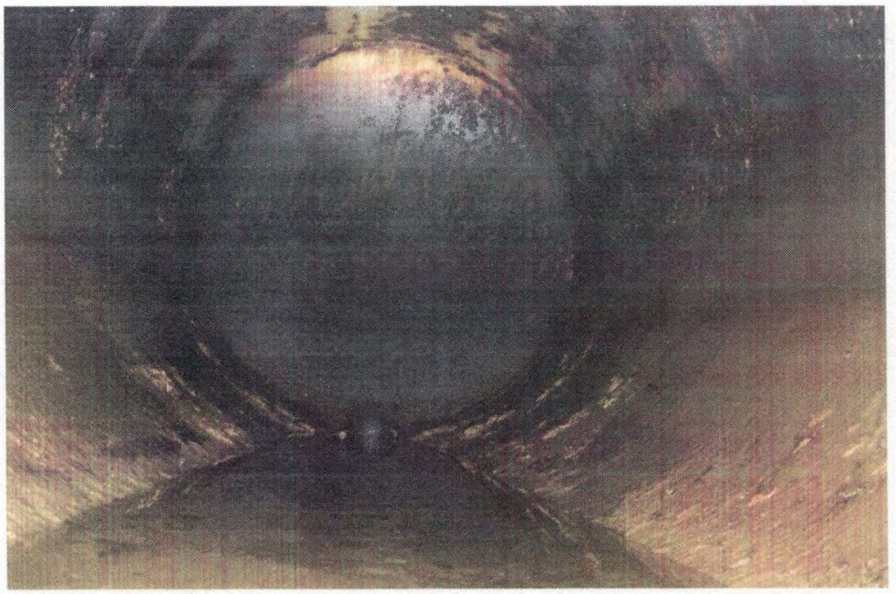
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 57 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/1/2019

Robert M. Couch III, P.E. Registration No. 55311

Typical exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

ELEVEN OAKS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	40
PWS:	3424099
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander Chip Wildy	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	David Hannah	850-668-2746	352-267-5108	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician				
Gas / Propane Supplier				
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	Roto Rooter Allen Curry	352-629-7886		
Pump Supplier	Coast Pump Zane	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, Hal McDonald 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 180 & 179 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	8720 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424099**	
System name and address	**Eleven Oaks**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**2767 NE 60th Ln**	
Population served and service connections.	Population =	Connections =257
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	8720GPD
Maximum Daily Demand (gpd)	10300GPD
System Capacity (gpd)	79200 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	2767 NE 60th Ln			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	215 FT			
Well Yield (gpd)	79200GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	5 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Eleven Oaks Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424099 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule?	■ Yes	☐ No
(B) Is your system regulated by the Public Service Commission (PSC)?	☐ Yes	☐ No
If Yes, was a copy of your CCR sent to the PSC, as required by rule?	■ Yes	☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/24/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Eleven Oaks

Florida Department of Environmental Protection Public Water System ID # 3424099

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from one well located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes, we also use an additive for corrosion control. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR ELEVEN OAKS

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	(pCi/L)	OCT '18	No	6	N/A	0	15	Erosion of natural deposits
Radium 226 + 228	(pCi/L)	OCT '18	No	1.2	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	OCT '18	No	0.9	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	OCT '18	No	0.0058	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	OCT '18	No	0.2	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	0.35	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	OCT '18	No	9.4	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.0	0.4 - 1.8	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	AUG '18	No	3.78	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.165	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019ElevenOaks.pdf

APPENDIX E: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **ELEVEN OAKS SUBDIVISION** County Marion PWS ID # **3424099**
Plant Location Between NE 60th Lane and 63rd Street, Ocala, FL 34471 Phone 352/347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352/347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352/347-8228
This Survey Date 1/23/18 Last Survey Date 11/16/12 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 39,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination, corrosion control

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 36
Population Served 126 Basis Operator

OPERATION & MAINTENANCE LOG: Yes
Location Plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 2 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 9,961 gpd
Maximum Day (from MORs) 48,400 gpd 9/17
Comments During 9/17 the system exceeded the design capacity. The circumstances were non-recurrent and highly unusual.

Flow Measuring Device Flow Meter
Meter Size & Type 3" Kent
Date Last Calibrated 4/22/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐ Yes ☐ No ☐ Unknown
Audio-visual alarm? ☐ Yes ☐ No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☒ N/A
Emergency Response Plan	☒ Yes	☐ No	☒ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☒ N/A
Records	☒ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☒ N/A
Records	☒ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 11/14/12
Comments

PWS ID # 3424099
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0276)			
Year Drilled		1981			
Depth Drilled		200’			
Drilling Method		Rotary drill			
Type of Grout		Neat cement			
Static Water Level		Unknown			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		194’			
Diameter (outside casing)		4”			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	55			
	Motor Horsepower	5			
Well casing 12” above grade?		No*			
Well Casing Sanitary Seal		OK			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		Yes			

COMMENTS *The Department will continue to accept the well casing height as it currently exists unless it is shown to contain chemical or microbial contamination.

PWS ID # 3424099
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 15 gpd
Chlorine Feed Rate 90% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.19 Remote 1.25
Remote tap location 5985 NE 25th Ave
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

CORROSION CONTROL
Chemical Used Aqua Gold
Make Stenner Capacity 17 gpd
Feed Rate 30% stroke
Injection Points Well discharge piping
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	1,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	Discharge piping
Date of Inspection	6/13
Date of Cleaning	6/13

Comments Tank inspection due 6/18.

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

PWS ID # 3424962
Date 1/23/18

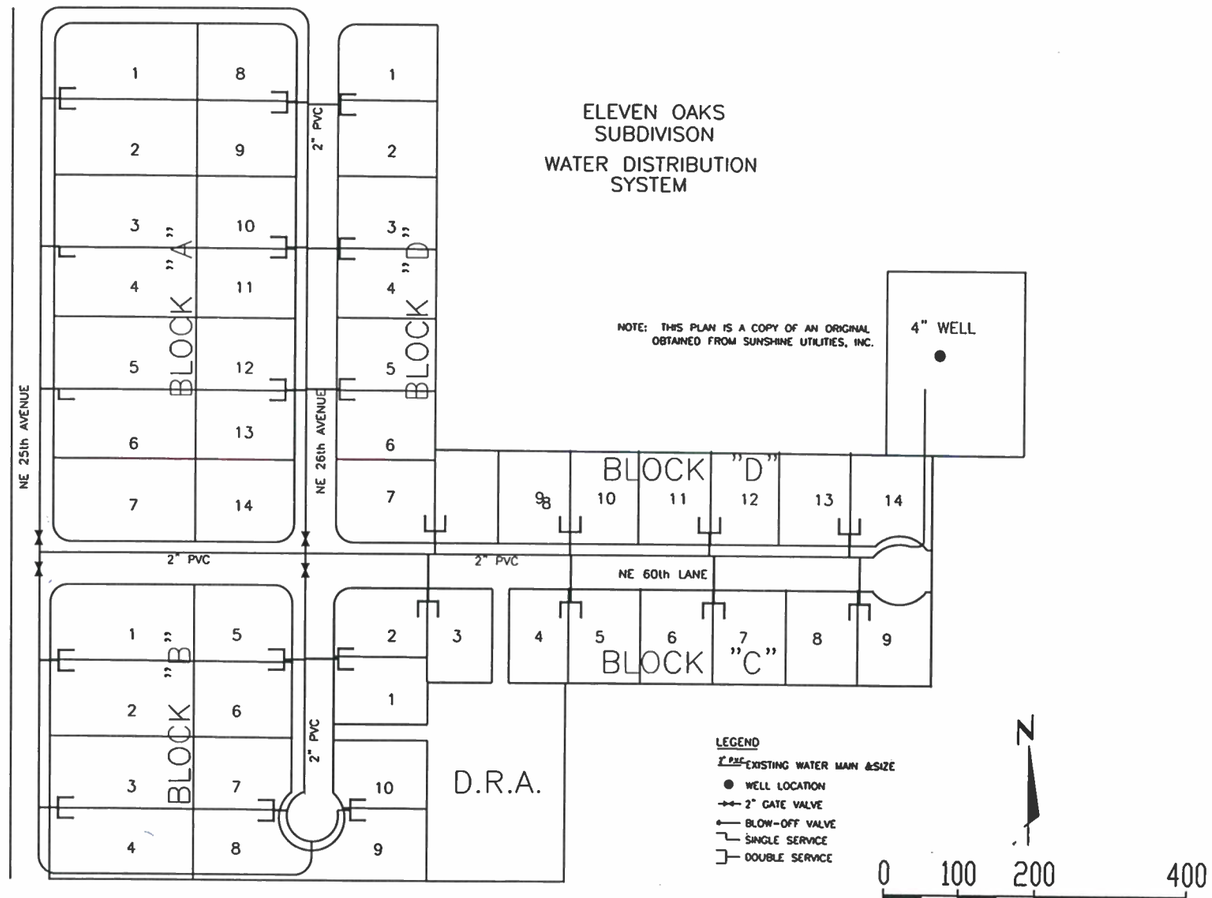
COMMENTS (continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

ELEVEN OAKS
SUBDIVISON
WATER DISTRIBUTION
SYSTEM



NOTE: THIS PLAN IS A COPY OF AN ORIGINAL OBTAINED FROM SUNSHINE UTILITIES, INC.

LEGEND

- 2" PVC EXISTING WATER MAIN & SIZE
- WELL LOCATION
- 2" GATE VALVE
- BLOW-OFF VALVE
- SINGLE SERVICE
- DOUBLE SERVICE

N

0 100 200 400

Scale: 1"= 200'

H. W. BARRINEAU & ASSOCIATES, INC.
3100 SOUTHEAST 17th ST., SUITE 602 OCALA, FLORIDA 34471
TEL (352) 840-8600 (352) 840-8774

ELEVEN OAKS
SUNSHINE INDUSTRIES INC.
OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PWM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9836-02

1

Sheet 1 Of 1

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Emil-Mar Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Emil-Mar. A summary of the main parameters for the water system are summarized below in Table 1-1.

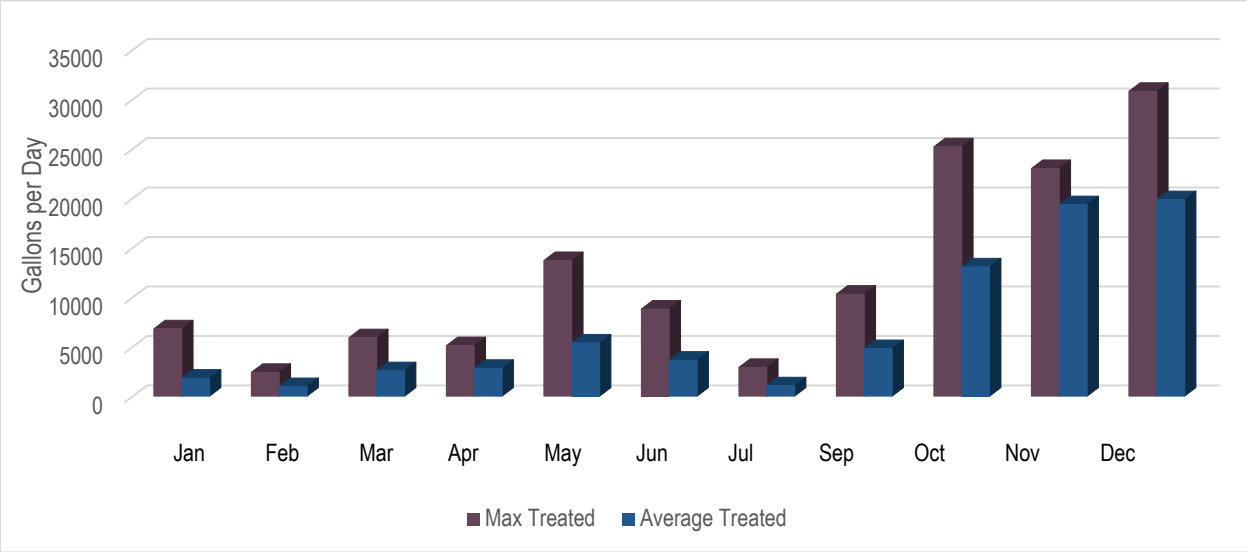
Table 1-1: Emil-Mar System Information

Water System Name	Emil-Mar
PWD ID Number	3420340
Classification	Community
Plant Category & Class	5D
Street Address	2199 NE 38th Street
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	255 (Sanitary Survey)
Number of Service Connections	73 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	6,840 GPD (2019 Monthly Reporting)
Maximum Day Water Use	30,800 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	72,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Emil-Mar community is depicted in Figure 1-1.

Figure 1-1: Emil-Mar Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 through a 2-inch Neptune flow meter and check valve into a 2,500-gallon steel hydropneumatic tank. The well pump turns on when the pressure in the tank is at 45 psi and turns off a 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 2-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	79 feet deep, 62 GPM	1977 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	2,500 gallons, Steel	Approx. 1988 (Tank Inspection Report)	Fair

2.1.1 Source

The Emil-Mar well is located next to the tank within a locked fenced in area and is located roughly 20 feet from the NE 38th Street. Well 1 is shown in Figure 2-1. The well casing had buildup of rust on the exterior as shown in Figure 2-2. The top of the well casing is about 12 inches above grade and within a concrete pad. The well is 79 feet deep with a submersible Sta-Rite 62 GPM pump, 3 HP motor, and 230 Volts. There is a 2-inch Neptune meter at the well in good condition, shown in Figure 2-3.

There is a flapper valve that is used as an air vent and a sample tap off the top of the well. The well casing had corrosion on the shell and bolts, and the screen on the flapper vent was partially removed.

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

Figure 2-2: Well Casing Corrosion

Figure 2-3: Source Meter

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is 1:5 of 10.5% chlorine water and stored in two 55-gallon drums located outdoors, one drum is used for mixing the chlorine and one drum is used for storing and distribution, as shown in Figure 2-4. The chlorine pump is a diaphragm 15 GPD Chemtech,

set at 90% stroke. The average distribution residual in 2019 was 0.9 mg/L. The chlorine tank had a large amount of plant debris accumulated from overhead trees. The chemical metering pump at Emil-Mar is shown in Table 2-2.

The chlorine pump will turn on when the pump is energized, and the chemical pump outlet is wired to the well pump starter.

Table 2-2: Emil-Mar Chemical Metering Pump

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Chem-Tech
Model	X015-XA-AAAFXXX
Size	15 GPD

Figure 2-4: Chemical Treatment

2.1.3 Storage

The Emil-Mar water treatment plant has a 2,500-gallon hydro pneumatic storage tank on-site as shown in Figure 2-5. The tank is plumbed with 2-inch isolation gate valves at the inlet and outlet of the tank with a 2-inch bypass line that is normally closed, and a drain gate valve located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup. During the inspection, the air release valve on the storage tank was leaking.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the tank shell, head, and exterior condition was in overall good condition and the interior of the tank appeared to be in fair condition. The tank interior had areas where the tank coating was beginning to fail and there was corrosion noted on the side walls of the tank interior. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-5: Storage Tank

2.1.4 Pump Station Building

The Emil-Mar treatment plant has no building on-site. The well, tank, and chemical treatment is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years, however Sunshine Utility's 2018 and 2017 Consumer Confidence reports did report more than one-half of the allowable limits of nitrates. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 13, 2018 and stated that a check valve was leaking or not functioning properly, the deficiency was corrected on February 12, 2018 by replacing the check valve. Please refer to Appendix E for the Sanitary Survey Report. The plant received one violation in the past ten years related to Monitoring and Reporting in 2016.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Source of Supply

The screen on the vent should be replaced to prevent contamination.

2.3.3 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The air release valve on the hydropneumatic tank was leaking and should be replaced.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 55-gallon tanks for chlorine treatment. This container should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-6.

Figure 2-6: PIG 66-Gallon Tank Enclosure

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, and that the tank had areas where the tank coating was beginning to fail and there was corrosion noted on the side walls of the tank interior. The tank is over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1977 and supplies water to four blocks using a 2 to 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. There does not appear to be any blow-off points. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution system map does not show any flush points in the system. Flush points should be installed on the southern end of NE 22nd Court and on the southern end of NE 24th Court. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Emil Mar to normal operating conditions are summarized with cost estimates in Table 4-1 through Table 4-3. The total cost estimate for Triage Repairs at Emil-Mar is: **$18,700.**

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$5,000
Mission Monitoring at Well	$10,000
Total	$16,000

Table 4-2: Source of Supply Triage Repairs

Recommendation	Estimate
Replace screen on vent, replace leaking air release valve	$1,000
Total	$1,000

Table 4-3: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Total	$1,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Emil Mar to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-4 through Table 4-7. The total cost estimate for Capital Improvements at Emil-Mar is: **$76,000.**

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$5,000
Total	$16,500

Table 4-5: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$3,500
Total	$3,500

Table 4-6: Transmission and Distribution System Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Install Blowoff Valves	$4,000
Total	$31,000

Table 4-7: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

EMIL-MAR SUBDIVISION
NE 22ND & NE 38TH ST
OCALA, FL 34471

Public Water System ID: 3420340
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 255
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5492	EMIL-MARR SUBDIVIS ELL	AAE0259	ACTIVE	79	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

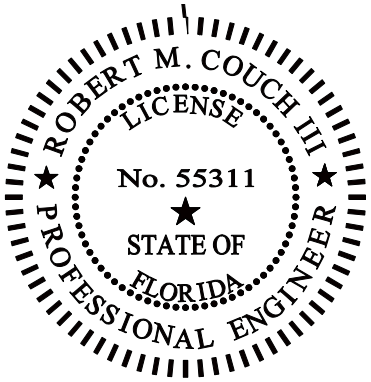
Emil-Marr Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Emil-Marr Subdivision
Street Address:	NW corner of NE 22nd Court & 38th Street
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3420340
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 11, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.01 23:15:36 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 11, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 4.77 millimeters. UTM readings from the tank heads indicated an average thickness of 8.11 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. The interior coating of the tank appeared to be in fair condition with only slight surface corrosion beginning to form along portions of the tank ridge where the coating was beginning to fail.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 60 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 52 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 14'-10" (16'-4" including elliptical heads)
Diameter: 5'-3" outside diameter
Volume: 2,500 gallons with elliptical heads
Tank Age: Approximately 25-30 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along the tank ridge.

6.3 Ultrasonic Metal Thickness Testing

A total of 59 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 4.77 millimeters in the cylindrical section and 8.11 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. A few lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in fair condition, however, there were areas where the tank coating was beginning to fail on the interior tank surface. There was corrosion noted on the side walls of the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 4.77mm / (795 mm+0.6 x 4.77 mm)
= 0.359 MPa
= 52 psi

When:

t < 0.5R = 0.5 x 908 = 453.83 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 4.77 mm
R = inside radius of shell course under consideration (mm) = 795 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Emil-Marr subdivision 2,500-gallon hydropneumatic pressure tank was performed on December 11, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already begun to fail.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 60 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

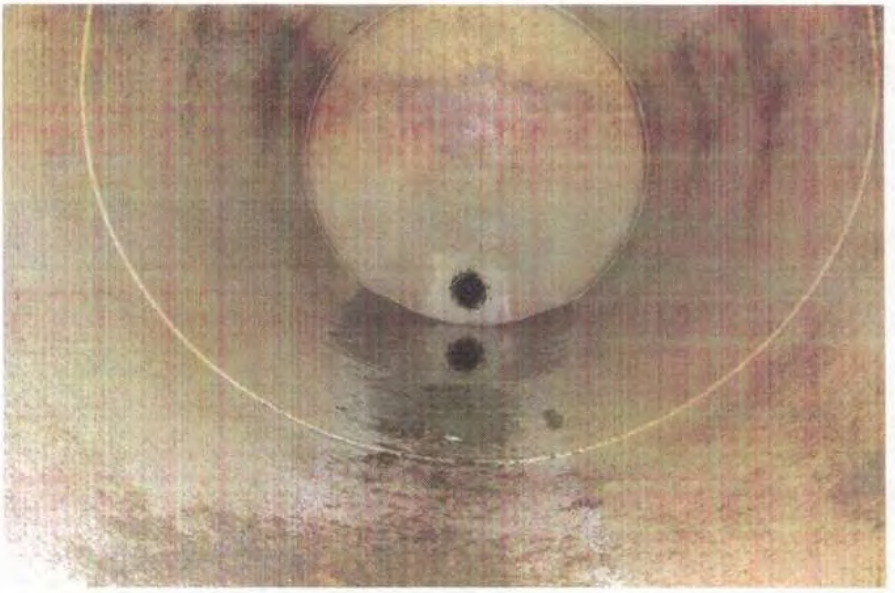
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 52 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/1/2019

Robert M. Couch III, P.E. Registration No. 55311

Typical exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

EMIL MAR

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PWS:	3420340
County:	Marion

May 17, 2013

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 79 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	2967 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3420340**	
System name and address	**EMIL MARR**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**2199 NE 38th ST**	
Population served and service connections.	Population =	Connections = 76
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	2967 GPD
Maximum Daily Demand (gpd)	5100GPD
System Capacity (gpd)	72000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	NE 22nd CT			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	79 FT			
Well Yield (gpd)	72000GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	50 GPM			
Motor Manufacturer	Franklin			
Horsepower	5 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Emil Mar Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3420340 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.
(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

☑ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule?	☒ Yes	☐ No
(B) Is your system regulated by the Public Service Commission (PSC)?	☐ Yes	☐ No
If Yes, was a copy of your CCR sent to the PSC, as required by rule?	☒ Yes	☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Emil Mar Subdivision

Florida Department of Environmental Protection Public Water System ID # 3420340

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, Sunshine Utilities, (352) 347-8228,** during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR EMIL MAR

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium	(ppm)	APR '18	No	0.0023	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	APR '18	No	1.8	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	APR '18	No	0.043	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Lead (point of entry)	(ppb)	APR '18	No	0.3	N/A	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen)	(ppm)	FEB - DEC '19	No	6.41	5.77 - 6.41	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	APR '18	No	19	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.9	0.4 - 1.6	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	AUG '18	No	3.08	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUN '18	No	0.165	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	JUN '18	No	4	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019EmilMar.pdf

APPENDIX E: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **EMIL-MAR SUBDIVISION** County Marion PWS ID # **3420340**
Plant Location NE 22nd & NE 38th Street, Ocala, FL 34471 Phone 352/347-8228
Owner Name Sunshine Utlities of Central Florida, Inc. Phone 352/347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352/347-8228
This Survey Date 1/23/18 Last Survey Date 8/19/15 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 72,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 73
Population Served 255 Basis 12/17 MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 18,491 gpd
Maximum Day (from MORs) 67,000 gpd 6/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Sensus
Date Last Calibrated 7/23/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☒ N/A
Emergency Response Plan	☒ Yes	☐ No	☒ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 11/14/12
Comments

PWS ID # 3420340
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1 (AAE0259)**			
Year Drilled		1977			
Depth Drilled		79’			
Drilling Method		Cable tool			
Type of Grout		Neat cement			
Static Water Level		Unknown			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		52’			
Diameter (outside casing)		6”			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	62			
	Motor Horsepower	5			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		OK			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes*			
Security		Yes			
Well Vent Protection		N/A			

COMMENTS *Check valve leaking

PWS ID # 3420340
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 15 gpd
Chlorine Feed Rate 100% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant >2.2 Remote >2.2
Remote tap location 2319 NE 38th St.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	2,500
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	Discharge piping
Date of Inspection	6/13
Date of Cleaning	6/13

Comments
Tank inspection due 6/18

PWS ID # 3420340
Date 1/23/18

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
Check valve leaking or not functioning properly.	62-555.350(2)	Repair or replace.	2/12/18 - check valve replaced per operator e-mail	No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for

more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

COMMENTS (continued):

- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18
Date	*Date*

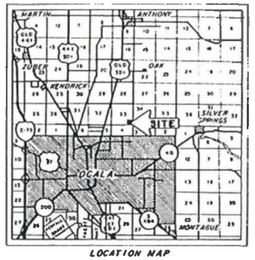
APPENDIX F: DISTRIBUTION MAP

EMIL - MARR

IN

SECTION 33, TOWNSHIP 14 SOUTH, RANGE 22 EAST

MARION COUNTY, FLORIDA



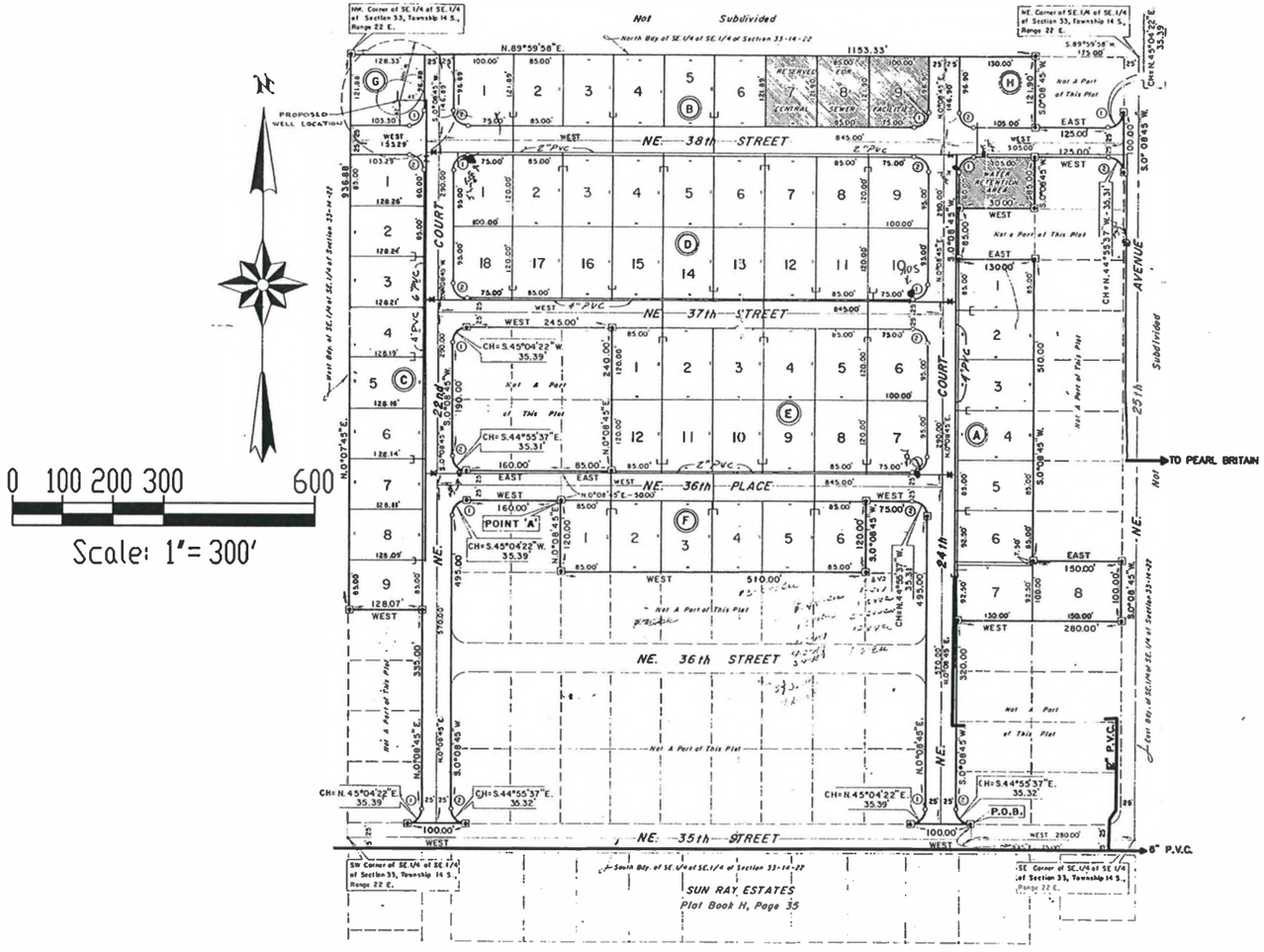
LOCATION MAP

GRAPHIC SCALE
SCALE 1" = 100'

THIS DRAWING IS A COPY OF AN ORIGINAL
Prepared By
MOORHEAD ENGINEERING COMPANY
305 SE. 1st Avenue Ocala, Florida

CURVE DATA

NO.	Δ	R	ARC	TAN	CH	CH BRG.
1	89°59'15"	25.06'	39.30'	25.00'	35.39'	N.45°04'22"E.
2	90°08'45"	24.94'	39.25'	25.00'	35.31'	S.44°55'37"E.



H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST., SUITE 602
OCALA, FLORIDA 34471
TEL (352) 840-8600
(352) 840-8774

EMIL MARR

SUNSHINE UTILITIES INC.

OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

PROJECT NO. 9636-02

1

Sheet 1 Of 1

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Florida Heights Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Emergency Response Plan
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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Florida Heights. A summary of the main parameters for the water system are summarized below in Table 1-1.

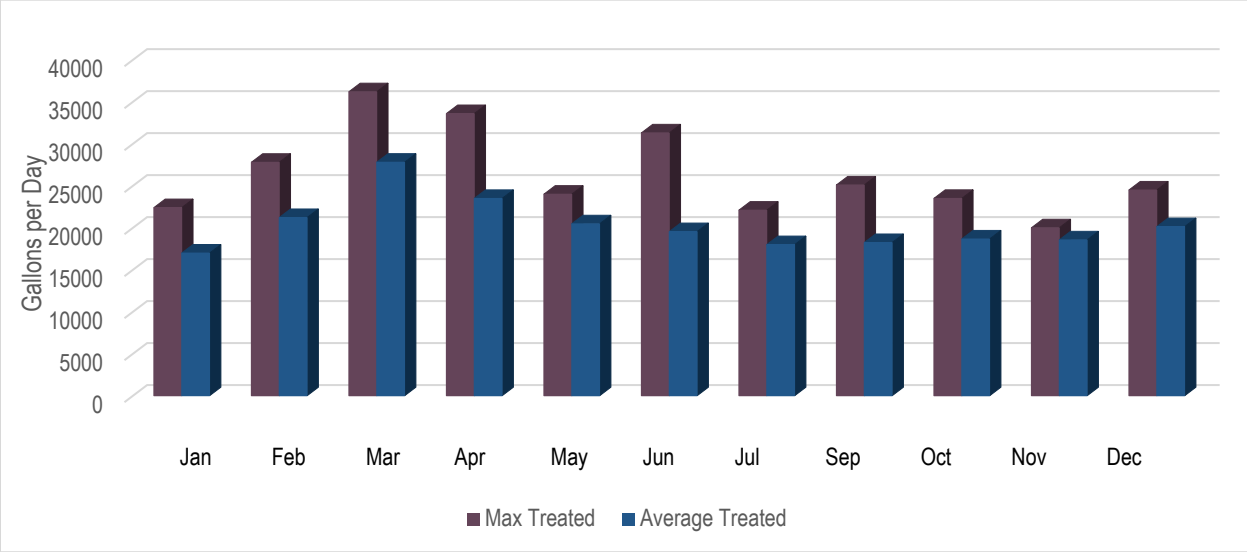
Table 1-1: Florida Heights System Information

Water System Name	Florida Heights Subdivision
PWD ID Number	3424031
Classification	Community
Plant Category & Class	5D
Street Address	6860 SE 53rd Place
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	346 (Sanitary Survey)
Number of Service Connections	99 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	20,284 GPD (2019 Monthly Reporting)
Maximum Day Water Use	36,200 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	144,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Florida Heights community is depicted in Figure 1-1.

Figure 1-1: Florida Heights Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two wells onsite: Well 1 and Well 2. Water from Well 1 is pumped through a 3-inch Sensus flow meter, 3-inch butterfly valve, 3-inch ball valve, and 4-inch gate valve before going into the 3,000-gallon steel hydropneumatic tank. Water is pumped from Well 2 through a 3-inch Master flow meter, 3-inch swing check valve, and 3-inch gate valve before going into the storage tank. Well 1 turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Well 2 will turn on as the lag pump to supplement flow as needed. Chlorine is injected for disinfection prior to entering the tank. There is a 4-inch line for flow from Well 1 to bypass the storage tank that is normally closed. Water exits the tank on the opposite side from where it enters and flows out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	146 feet deep, 100 GPM	1980 (Sanitary Survey)	Fair
Source	Well 2	146 feet deep, 100 GPM	1980 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	3,000 gallons, Steel	2016 (Tank Information Plate)	Fair
Building	CMU	6.7 by 7.4 feet	Unknown	Fair

2.1.1 Source

Well 1 is located within a locked fenced in area and is located roughly 2.5 feet from the pump station building and is shown in Figure 2-1. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 146 feet deep. The Sanitary Survey states the well has a submersible Sta-Rite 100 GPM pump and 5 HP motor, however this may have been changed and not updated because the pump starter box notes a 7.5 HP motor. Well 1 acts as a "lead" well and supplies most of the water used in distribution. The well has sample tap off the top of the well, and a screened ¾-inch vent on the casing. There is a 3-inch Sensus meter after the well.

Figure 2-1: Well 1

Figure 2-2: Well 1 3/4 -Inch Screened Vent

Well 2 serves as the "lag" well and will only turn on if Well 1 cannot keep up with the water demand. Well 2 is located 10 feet from Well 1 and 5 feet from the hydropneumatic storage tank and is shown in Figure 2-3. The well casing is 12 inches above grade and within a concrete pad. The well is 146 feet deep. The Sanitary Survey states the well has a submersible Sta-Rite 100 GPM pump and 5 HP motor, however this may have been changed and not updated because the pump starter box notes a 10 HP motor. The well is equipped with a bleeder tee to allow air to charge the tank, and a flapper vent at the top of the well to allow excess air to be vented off. The flapper vent had no screen at the time of inspection, and the conduit for the well pump was not sealed and wires were exposed and unprotected from the environment. There is a 3-inch Master Meter after the well.

Figure 2-3: Well 2

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is 1:4 of 10.5% chlorine to water and is housed in two 55-gallon drums located indoors, one drum is used for diluting chlorine and one drum is used for chemical storage as shown in Figure 2-4. The chlorine is delivered through two diaphragm pumps. The chemical injection for Well 1 is supplied from a 30 GPD Unidose pump, set at 90% stroke. The chlorine for Well 2 is supplied by a 30 GPD Chemtech pump set at 90% stroke. The chemical metering pumps at Florida Heights Water System is shown in Table 2-2. The average distribution residual in 2019 was 1.2 mg/L.

The chlorine pumps will turn on when the well pump is energized, and the chemical pump outlets are wired to their respective well pump starter.

Table 2-2: Florida Heights Chemical Metering Pumps

Chemical Pump	Chlorine – Well #1	Chlorine – Well #2
Number of Pumps	1	1
Brand	Uni-Dose	Chem-Tech
Model	U041-281TT	X030-XA-AAAXXX
Size	30 GPD	30 GPD

Figure 2-4: Chemical Treatment

2.1.3 Storage

The Florida Heights water treatment plant has a 3,000-gallon hydropneumatic storage tank onsite as shown in Figure 2-5. The tank is plumbed with 3-inch isolation gate valves at the inlet and a 4-inch isolation gate valve at outlet of the tank with a 4-inch bypass line that is normally closed, and a drain gate valve located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed.

According to FDEP, the storage tank at the Florida Heights water treatment plant ruptured on December 29, 2017, and the facility installed a new storage tank within the last 3 years. The storage tank currently on site has a plate stating that the tank was constructed in 2016 and installed in 2018. The storage tank has not received a five-year inspection yet, but one will be due in 2023.

Figure 2-5: Storage Tank

2.1.4 Pump Station Building

The pump station building is a 6.7 by 7.4-foot CMU building with a wooden roof, shown in Figure 2-6, primarily used for storage of the chlorine mixing tank, injection tanks, and facility logbook. The building has no door but has an opening with a width of 40 inches. The building had no evidence of roof leaks or rodents, but the open door provides no containment for spills or protection from weather, rodents, and insects. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

Figure 2-6: Pump Station Building

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix B for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix C for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 23, 2018 and noted no deficiencies during the inspection. Please refer to Appendix D for the Sanitary Survey Report. Additionally, no compliance issues or violations were observed in the Florida Department of Environmental Protection information portal in the last ten years.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-7), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-7: Electrical Panel and Wiring

2.3.2 Source of Supply

Well #1 has a 3-inch Sensus meter, and well #2 has a 3-inch Master meter. These meters should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

Well #2 was not properly sealed to protect from bacteria contamination. The pump wires were exposed, and the vent had no screen, as shown in Figure 2-8. The pump wires should be sealed in a conduit and a vent screen should be added.

Figure 2-8: Well 2 Exposed Conduit Wire and Unscreened Vent

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 55-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical drums to a more compact 30-gallon drum and storing the chemicals on a containment pallet such as the PIG PAK604 Containment Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-9.

Figure 2-9: PIG 66-Gallon Containment Pallet

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1980 and supplies water using a 2 to 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed and one blowoff valve located on a dead end in the southwest corner. The system provides the community with potable water only (no fire flow water). Refer to Appendix E for a map of the water distribution system and Appendix G for As-Built plans.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter located behind each house. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Florida Heights to normal operating conditions are summarized with cost estimates in Table 4-1 through Table 4-3. The total cost estimate for Triage Repairs at Florida Heights is: **$63,000**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$50,000
Mission Monitoring at Well	$10,000
Total	$61,000

Table 4-2: Source of Supply Capital Improvements

Recommendation	Estimate
Replace screen on vent. Fix exposed well pump wire	$1,000
Total	$1,000

Table 4-3: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,000
Total	$1,000

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Florida Heights to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-4 through Table 4-7. The total cost estimate for Capital Improvements at Florida Heights is: **$77,500.**

Table 4-4: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Two Source Meters	$7,000
Total	$7,000

Table 4-5: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$7,000
Total	$18,500

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

Table 4-7: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

FLORIDA HEIGHTS S/D
SE 55TH PL & SE 68TH CT
OCALA, FL 34471

Public Water System ID: 3424031
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 346
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
24133	NORTH WELL #2	AAC0019	ACTIVE	146	Floridan Aquifer
5796	6"/146/66-74'	AACOO20	ACTIVE	146	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities
FLORIDA HEIGHTS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	118
PWS:	3424031
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

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2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander Chip Wildy	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	David Hannah	850-668-2746	352-267-5108	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	Duke Energy	800-228-8485		
Electrician				
Gas / Propane Supplier				
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	Allen Curry Plumbing	352-629-7886		
Pump Supplier	Coast Pump Zane	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, Hal McDonald 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(2) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 146 & 146 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	22500gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424031**	
System name and address	**Florida Heights**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**6860 SE 53rd PL**	
Population served and service connections.	Population =	Connections = 118
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	22500 GPD
Maximum Daily Demand (gpd)	24300 GPD
System Capacity (gpd)	144000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	6860 SE 53rd Pl	6860 SE 53rd Pl		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	146 FT	146 FT		
Well Yield (gpd)	144000 GPD	1728000		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta-Rite		
Capacity (gpm)	230 GPM	230 GPM		
Motor Manufacturer	Franklin	Franklin		
Horsepower	5 HP	10 HP		
Phase	1	1		
Volts/Amps	230 volts	230 volts		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX C: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Florida Heights Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424031 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019*** to its customers on _____ (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 4/24/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Florida Heights

Florida Department of Environmental Protection Public Water System ID # 3424031

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228,** during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019 and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR FLORIDA HEIGHTS

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	NOV '18	No	0.4	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	NOV '18	No	0.0042	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	NOV '18	No	0.11	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	1.73	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	NOV '18	No	0.6	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	NOV '18	No	9.3	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.1	0.8 - 1.8	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	AUG '18	No	2.64	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.215	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019FloridaHeights.pdf

APPENDIX D: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **FLORIDA HEIGHTS SUBDIVISION** County Marion PWS ID # **3424031**
Plant Location SE 55TH Place & SE 68th Court, Ocala, FL 34471 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352-347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 1/23/18 Last Survey Date 1/23/15 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 144,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connection 99
Population Served 346 Basis: 12/17 MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 29,714 gpd
Maximum Day (from MORs) 89,800 gpd 5/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 3" Kent & 3" Master
Date Last Calibrated 7/23/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☐ Yes	☐ No	☒ N/A
Emergency Response Plan	☐ Yes	☐ No	☒ N/A

Comments Stage 2 D/DBP Plan was submitted 8/20/14. Lead and Copper Plan was approved 10/10/12.

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None reported # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 2/15/10
Comments

PWS ID # 3424031
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1(AAC0020)**	**2(AAC0019)**
Year Drilled		1980	1980
Depth Drilled		146’	146’
Drilling Method		Combination	Combination
Type of Grout		Neat cement	Neat cement
Static Water Level		31’	31’
Pumping Water Level		Unknown	Unknown
Design Well Yield		Unknown	Unknown
Test Yield		Unknown	Unknown
Actual Yield (if different than rated capacity)		Unknown	Unknown
Strainer		Unknown	Unknown
Length (outside casing)		74’	66’
Diameter (outside casing)		6”	6”
Material (outside casing)		Black steel	Black Steel
Well Contamination History		None	None
Is inundation of well possible?		No	No
6’ X 6’ X 4” Concrete Pad		Yes	Yes
SET BACKS	Septic Tank	>200’	>200’
	Reuse Water	N/A	N/A
	WW Plumbing	>100’	>100’
	Other Sanitary Hazard	None observed	None observed
PUMP	Type	Submersible	Submersible
	Manufacturer Name	Sta-Rite	Sta-Rite
	Model Number	Unknown	Unknown
	Rated Capacity (gpm)	100	100
	Motor Horsepower	5	5
Well casing 12” above grade?		Yes	Yes
Well Casing Sanitary Seal		Yes	Yes
Raw Water Sampling Tap		Yes	Yes
Above Ground Check Valve		Yes	Yes
Security		Yes	Yes
Well Vent Protection		Yes	Yes*No

COMMENTS _____

PWS ID # 3424031
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make (1)Chem-Tech (1)Uni-Dose Capacity 15/12 gpd
Chlorine Feed Rate 75% and 70% of stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant >2.2 Remote >2.2
Remote tap location 6815 SE 55th Place
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to the hydropneumatic tank.
Booster Pump Info N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H***
Capacity (gal)	
Material	
Gravity Drain	
By-Pass Piping	
Protected Openings	
Sight Glass or Level Indicator	
PRV/ARV	
Pressure Gauge	
On/Off Pressure	
Access Secured	
Access Manhole	
Tank Sample Tap Location	
Date of Inspection	
Date of Cleaning	

Comments ***Tank ruptured 12/29/17. A community wide boil water noticed was issued on 12/29/17 and rescinded on 1/4/18.Currently there is a temporary tank in place pending the installation of the new tank.

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

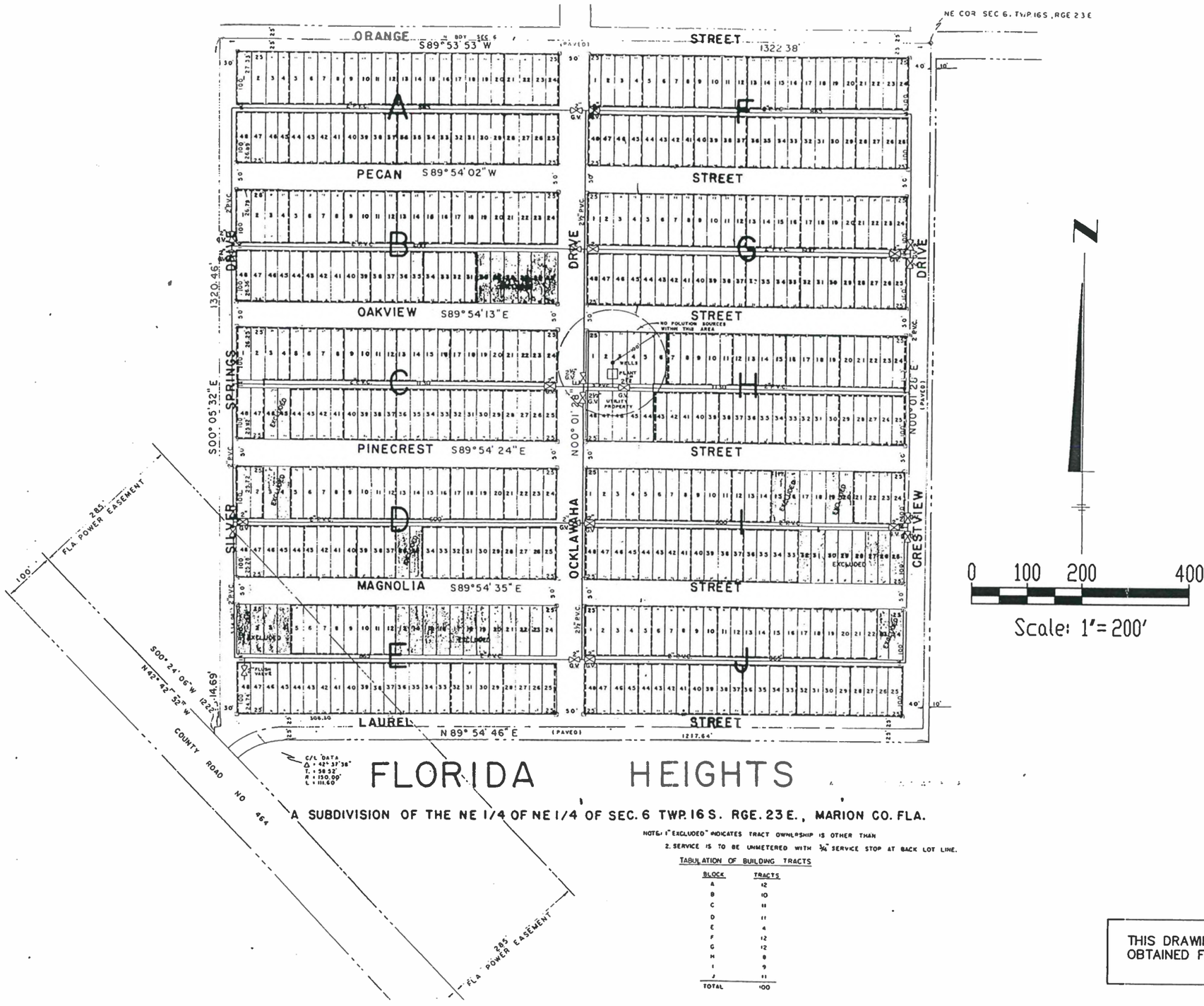
PWS ID # 3424031
Date 1/23/18

COMMENTS (continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18
Date	*Date*

APPENDIX E: DISTRIBUTION MAP



FLORIDA HEIGHTS

A SUBDIVISION OF THE NE 1/4 OF NE 1/4 OF SEC. 6 TWP. 16 S. RGE. 23 E., MARION CO. FLA.

NOTE: 1. "EXCLUDED" INDICATES TRACT OWNERSHIP IS OTHER THAN

2. SERVICE IS TO BE UNMETERED WITH ¾" SERVICE STOP AT BACK LOT LINE.

TABULATION OF BUILDING TRACTS

BLOCK	TRACTS
A	12
B	10
C	11
D	11
E	4
F	12
G	12
H	8
I	9
J	11
TOTAL	100

THIS DRAWING IS A COPY OF AN ORIGINAL OBTAINED FROM SUNSHINE UTILITIES, INC.

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17TH ST. SUITE 502 OCALA, FLORIDA 34471
PHONE (352) 840-9668 FAX (352) 840-9774

FLORIDA HEIGHTS

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

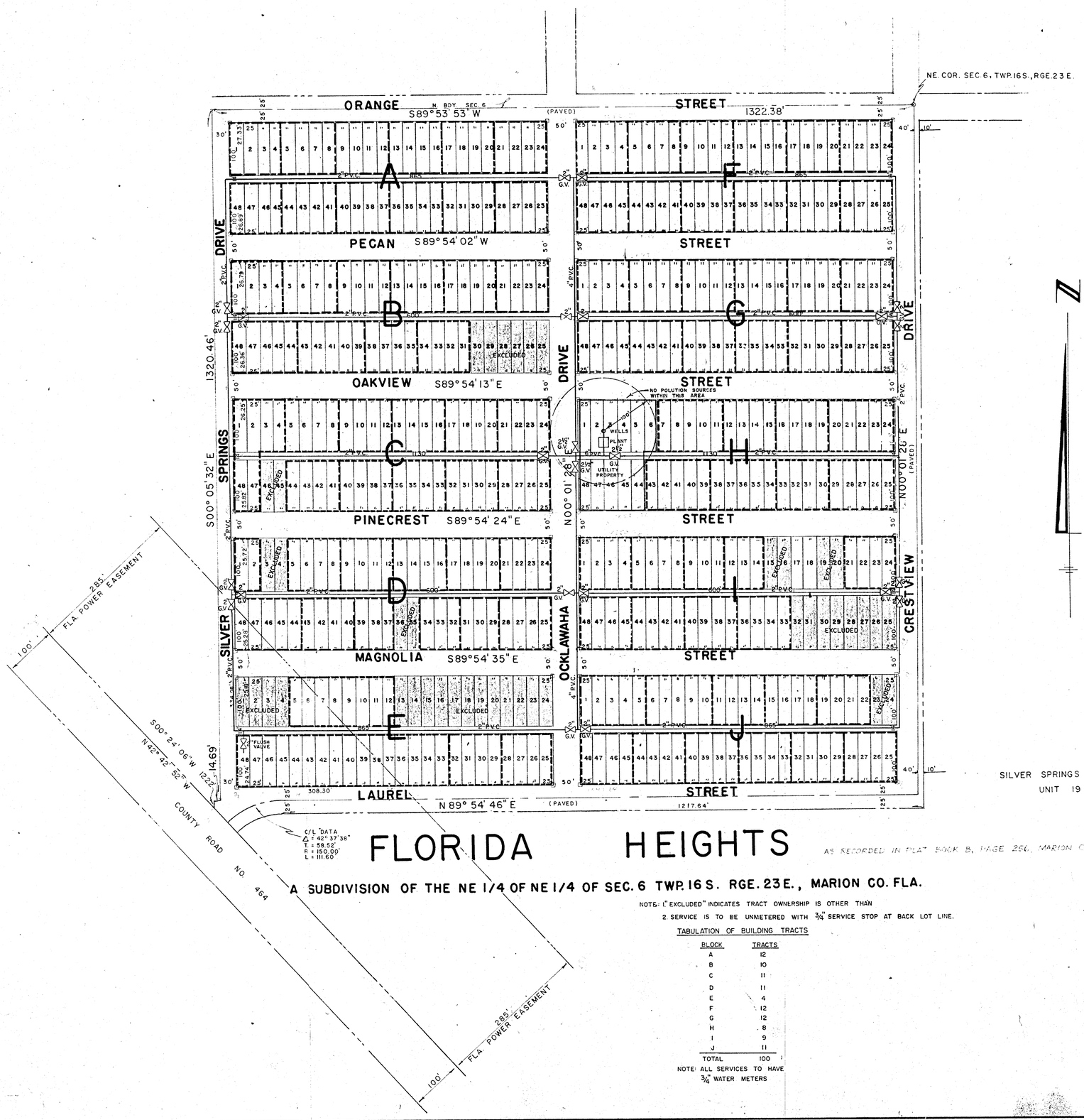
Project No. 9636-02

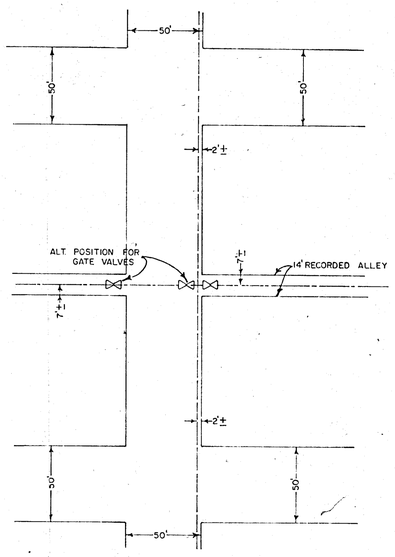
1

Sheet 1 Of 1

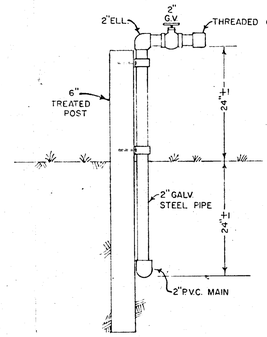
APPENDIX F: AS-BUILT PLANS

SILVER SPRINGS SHORES
UNIT 19





TYPICAL LOCATION DETAIL
(NOT TO SCALE)



TYPICAL FLUSH VALVE DETAIL
(NOT TO SCALE)

FLORIDA HEIGHTS

AS RECORDED IN PLAT BOOK B, PAGE 256, MARION COUNTY, FLORIDA

A SUBDIVISION OF THE NE 1/4 OF NE 1/4 OF SEC. 6 TWP. 16 S. RGE. 23 E., MARION CO. FLA.

NOTE: 1. "EXCLUDED" INDICATES TRACT OWNERSHIP IS OTHER THAN
2. SERVICE IS TO BE UNMETERED WITH ¾" SERVICE STOP AT BACK LOT LINE.

TABULATION OF BUILDING TRACTS

BLOCK	TRACTS
A	12
B	10
C	11
D	11
E	4
F	12
G	12
H	8
I	9
J	11
TOTAL	100

NOTE: ALL SERVICES TO HAVE ¾" WATER METERS

□ = 4X4 CONC. MON.

RECEIVED JUN 1980 Saint Johns River Water Management District

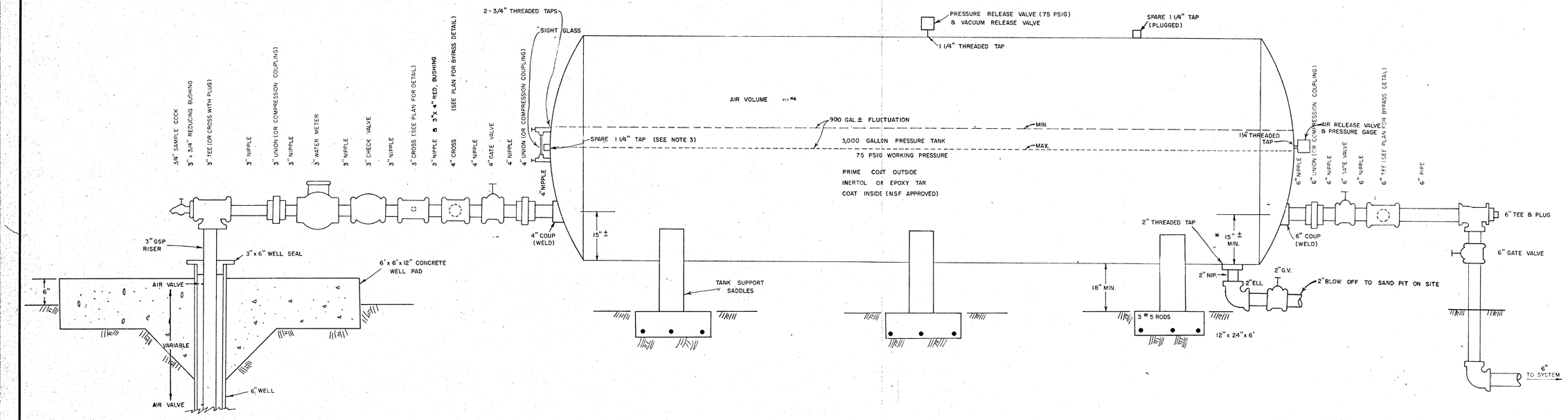
Audubon W. Gordon

GORDON ENGINEERING ASSOCIATES INC.
1815 N. JAX. ROAD OCALA, FLORIDA

WATER SYSTEM
FOR
FLORIDA HEIGHTS
COUNTY ROAD NO 464 MARION CO. FLORIDA

DATE: APRIL 18, 1980 REV. ED: 6/25/80		REF. -
SCALE: 1" = 100'		
DRAWN: R.W.L.[illegible]		
CHECKED: A.W.G.		

TER FORM 1980M



* VARY UPWARD TO ACCOMMODATE MANHOLE DIMENSIONS

NOTE: 1. CHLORINATORS & ELECTRIC TO BE ENCLOSED IN ADJACENT 6'x 6'x 6'-8" BUILDING ON CONCRETE SLAB FLOOR.

2 ENTIRE ASSEMBLY SHALL BE FENCED WITH 48" CHAIN LINK MESH.

3 WHEN PUMPS ARE TO BE CONTROLLED BY ALTERNATOR, THE PRESSURE SWITCHES SHALL BE RELOCATED ONTO THE PRESSURE TANK. PREFERRED LOCATION IS THE 1¼" SPARE TAP ADJACENT TO THE SITE GAGE.

NOTE: INSERT 3" GATE VALVE INTO PIPING AT THIS LOCATION

NOTE: SUPPORT OR BURY 4" BYPASS LINE

ARCHIE W. GORDON PROFESSIONAL ENGINEER
FLORIDA REGISTRATION NO. 3430

GORDON ENGINEERING ASSOCIATES, INC.
1815 N.E. JAX ROAD OCALA, FLORIDA

WATER SYSTEM FOR FLORIDA HEIGHTS

COUNTY ROAD NO. 464 MARION CO. FLORIDA

DATE: MARCH 18, 1980	REVISED: JUNE 25, 1980
SCALE: DIMEMSIONS AS SHOWN	
DRAWN: R.L.C.	
CHECKED: A.W.G.	SHEET OF

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Floyd Clark Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Floyd Clark. A summary of the main parameters for the water system are summarized below in Table 1-1.

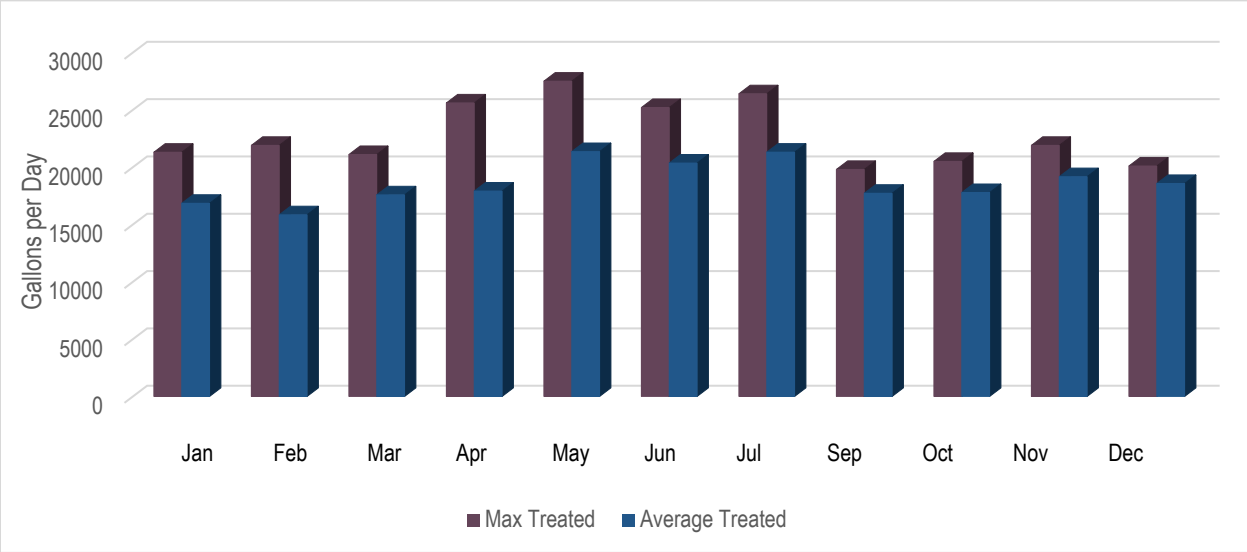
Table 1-1: Floyd Clark System Information

Water System Name	Floyd Clark
PWD ID Number	3420411
Classification	Community
Plant Category & Class	5D
Street Address	1441 NE 38th Street
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	251 (Sanitary Survey)
Number of Service Connections	72 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	18,547 GPD (2019 Monthly Reporting)
Maximum Day Water Use	26,400 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	68,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Floyd Cark community is depicted in Figure 1-1.

Figure 1-1: Floyd Clark Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 through a 2-inch Sensus flow meter and check valve into a 5,500-gallon steel hydropneumatic tank. The well pump turns on when the pressure in the tank is at 45 psi and turns off a 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 2-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and flows out to the distribution system. There are sample points off the top of the well, the storage tank, and prior to distribution.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	80 feet deep, 62 GPM	1974 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	5,500 gallons, Steel	Approx. 1983 (Tank Inspection Report)	Fair
Building	CMU	9.8 by 6.7 feet	Unknown	Fair

2.1.1 Source

The Floyd Clark well, shown in Figure 2-1, is located next to the tank within a locked fenced in area and is located roughly 20 feet from NE 38th Street. The well is about 5 inches above grade and within a concrete pad. The well is 80 feet deep with one submersible Sta-Rite 62 GPM pump, 5 HP motor, and 230 Volts. There is a vent and a sample tap off the top of the well shown in Figure 2-1, and a 2-inch Sensus meter after the well shown in Figure 2-2.

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

Figure 2-2: Well 1 Meter

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydro pneumatic tank. The chlorine is mixed 1:5 of 10.5% chlorine to water and is housed in two 55-gallon drums as shown in Figure 2-3. One drum is used for chemical storage and one drum is used for chemical mixing. The drums are located within the pump station building. The chlorine pump is a diaphragm 30 GPD Uni-dose, set at 90% stroke. The chemical metering pump at Floyd Clark is shown in Table 2-2. The average distribution residual in 2019 was 0.9 mg/L.

The chlorine pump will turn on when the well pump is energized, and the chemical pump outlet is wired to the well pump starter.

Table 2-2: Floyd Clark Chemical Metering Pump

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Uni-Dose
Model	U041-2811TT
Size	30 GPD

Figure 2-3: Chemical Treatment

2.1.3 Storage

The Floyd Clark water treatment plant has a 5,500-gallon hydro pneumatic storage tank on-site as shown in Figure 2-4. The tank is plumbed with 2-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed, and a drain valve located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the exterior condition was in overall good condition and the interior of the tank appeared to be in fair condition. The tank interior had significant areas where the tank coating was beginning to fail and there was corrosion noted on the side walls of the tank interior. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-4: Storage Tank

2.1.4 Pump Station Building

The Floyd Clark treatment plant has a 9.8 by 6.7-foot CMU building with a wooden roof as shown in Figure 2-5. There is no door on the building and has an opening with a width of 4 feet. The building had holes along the bottom of the walls and a significant amount of insects and plant debris. The well, tank, and chemical treatment is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

Figure 2-5: Pump Station Building

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years, and no bacteria was detected during monthly bacteria samples during 2019. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 23, 2018 and stated that a well casing vent was not properly screened, the deficiency was corrected on February 12, 2018 by replacing the screen. The plant received no violations in the last ten years. Please refer to Appendix E for the Sanitary Survey Report.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is a large tree growing next to the hydropneumatic tank and should be removed to prevent any damage from fallen branches.

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The building had holes along the bottom of the walls and a significant amount of insects and plant debris as well as general degradation from chlorine off gassing and weather over time. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-6), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-6: Rusted Pump Starter Panel

2.3.2 Source of Supply

The system has a 2-inch Sensus meter after the well. This meter should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

There is no screen on the well vent and should be added to protect the well from contamination. See Figure 2-7.

Figure 2-7: Unscreened Well Vent

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 55-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by storing the chemicals on a pallet such as the PIG PAK 604 containment pallet with a 66-gallon containment capacity, and keep it stored in the pump station building. An example is shown in Figure 2-8.

Figure 2-8: PIG 66-Gallon Containment Pallet

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, with significant areas where the coating had failed. Corrosion was also noted in the interior walls. The tank is over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1974 and supplies water to six blocks using a 2 to 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed, and there does not appear to be any flushing points. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home as its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

A flushing point should be added at the end of NE 37th Street. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Floyd Clark to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Floyd Clark is: **$54,000.**

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$40,000
Clear Vegetation	$2,000
Mission Monitoring at Well	$10,000
Total	$53,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,000
Total	$1,000

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Floyd Clark to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-6. The total cost estimate for Capital Improvements at Floyd Clark is: **$76,000.**

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$3,500
Total	$3,500

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$7,000
Total	$18,500

Table 4-5: Transmission and Distribution System Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Install Blowoff Valves	$2,000
Total	$29,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Replace Source Meter	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

FLOYD CLARK SUBDIVISION
NE 38TH ST.& 14TH AVE.
OCALA, FL 34471

Public Water System ID: 3420411
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 251
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5509	FLOYD CLARK SUBDIV WELL	N/A	ACTIVE	80	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

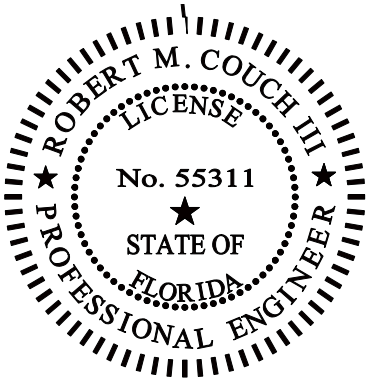
Floyd Clark Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Floyd Clark Subdivision
Street Address:	NE 38th Street & NE 14th Avenue
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3420411
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 6, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
15290 SE Highway 42, PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.05 23:34:46 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 6, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.17 millimeters. UTM readings from the tank heads indicated an average thickness of 5.92 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. The interior coating of the tank appeared to be in overall fair condition. The coating on the tank interior had begun to fail and corrosion was noted on the tank floor and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 59 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 23'-9" (27'-3" including elliptical heads)
Diameter: 6'-0" outside diameter
Volume: 5,500 gallons with elliptical heads
Tank Age: Approximately 30-35 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had failed.

6.3 Ultrasonic Metal Thickness Testing

A total of 69 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.17 millimeters in the cylindrical section and 5.92 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in fair condition. There were significant areas where the coating had begun to fail on the interior tank surface. There was surface corrosion noted in various areas throughout the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.17 mm / (908 mm+0.6 x 6.17 mm)
= 0.406 MPa
= 59 psi

When:

t < 0.5R = 0.5 x 908 = 454 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.17 mm
R = inside radius of shell course under consideration (mm) = 908 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Floyd Clark subdivision 5,500-gallon hydropneumatic pressure tank was performed on December 6, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had failed on various parts of the interior.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed surface corrosion throughout various portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

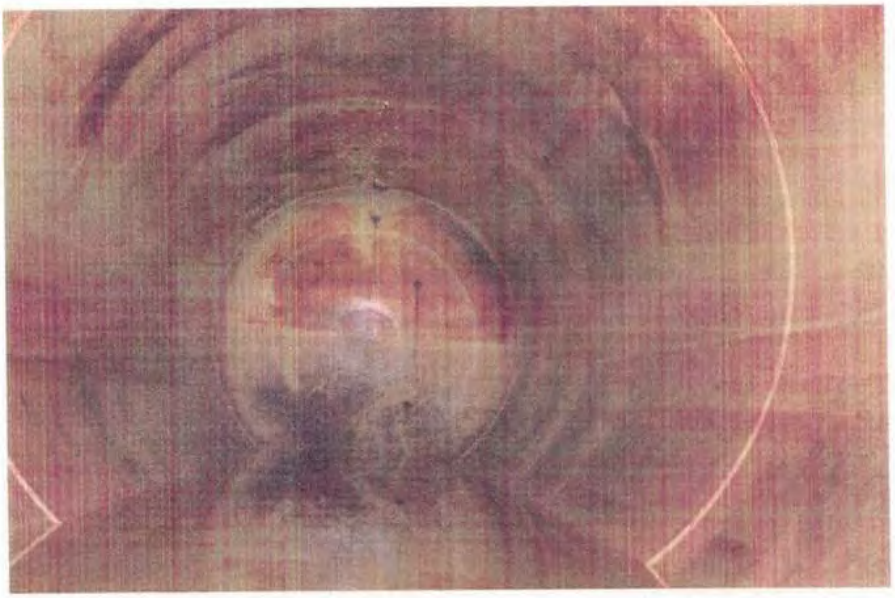
- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.
- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 59 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/5/2018

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

FLOYD CLARK

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	77
PWS:	3420411
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	TomGustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 80 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	13,174 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3420411**	
System name and address	**Floyd Clark**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**1441 NE 38th St**	
Population served and service connections.	Population =	Connections = 77
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	13174 GPD
Maximum Daily Demand (gpd)	15900 GPD
System Capacity (gpd)	68000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	1441 NE 38th St			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	80 FT			
Well Yield (gpd)	13,800 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	5 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Floyd Clark Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3420411 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.
(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule?	■ Yes	☐ No
(B) Is your system regulated by the Public Service Commission (PSC)?	☐ Yes	☐ No
If Yes, was a copy of your CCR sent to the PSC, as required by rule?	■ Yes	☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Floyd Clark / Hodges

Florida Department of Environmental Protection Public Water System ID # 3420411

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well(s). The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

Floyd Clark / Hodges water system also serves the Northwoods Community. If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR FLOYD CLARK

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228	(pCi/L)	MAR'15	No	1.5	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	APR'18	No	0.4	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	APR'18	No	0.0037	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	APR'18	No	1.5	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	APR'18	No	0.14	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong
Lead (point of entry)	(ppb)	APR'18	No	0.3	N/A	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	3.14	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	APR'18	No	0.7	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	APR'18	No	13	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1	0.4 - 1.8	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	AUG'18	No	3.65	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUN'18	No	0.285	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	JUN'18	No	4.7	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019FloydClarkHodge.pdf

APPENDIX E: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **FLOYD CLARK SUBDIVISION** County Marion PWS ID # **3420411**
Plant Location NE 38th Street & 14th Avenue, Ocala, FL 34471 Phone 352/347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352/347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352/347-8228
This Survey Date 1/23/18 Last Survey Date 8/19/15 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 68,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 72
Population Served 251 Basis 12/17 MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 16,442 gpd
Maximum Day (from MORs) 24,600 gpd 5/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Sensus
Date Last Calibrated 7/23/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☒ N/A
Emergency Response Plan	☒ Yes	☐ No	☒ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 11/14/12
Comments

PWS ID # 3420411
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1**			
Year Drilled		1974			
Depth Drilled		80’			
Drilling Method		Unknown			
Type of Grout		Unknown			
Static Water Level		Unknown			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		65’			
Diameter (outside casing)		4”			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	62			
	Motor Horsepower	5			
Well casing 12” above grade?		No*			
Well Casing Sanitary Seal		OK			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		Yes**			

COMMENTS *The Department will continue to accept the well casing at the current height unless it is shown to contain chemical or microbial contamination. **Well vent screen missing.

PWS ID # 3420411
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 30 gpd
Chlorine Feed Rate 65% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant >2.2 Remote 1.66
Remote tap location 3721 NE 14th Ave
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	5,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	Discharge piping
Date of Inspection	6/13
Date of Cleaning	6/13

Comments Next tank inspection due 6/18

PWS ID # 3420411
Date 1/23/18

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
Well casing vent was not properly screened (missing or damaged screens).	62-555.320(8)(c)	Provide a well vent that is at least 12 inches above well pad in a down turned position above the top of the casing and covered by a 24 mesh, corrosion resistant screen.	2/12/18 - vent screen replaced per operator e-mail	No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for

more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

COMMENTS (continued):

- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature

Viviana Penuela Useche
Printed Name

Environmental Specialist
Title

2-21-18
Date

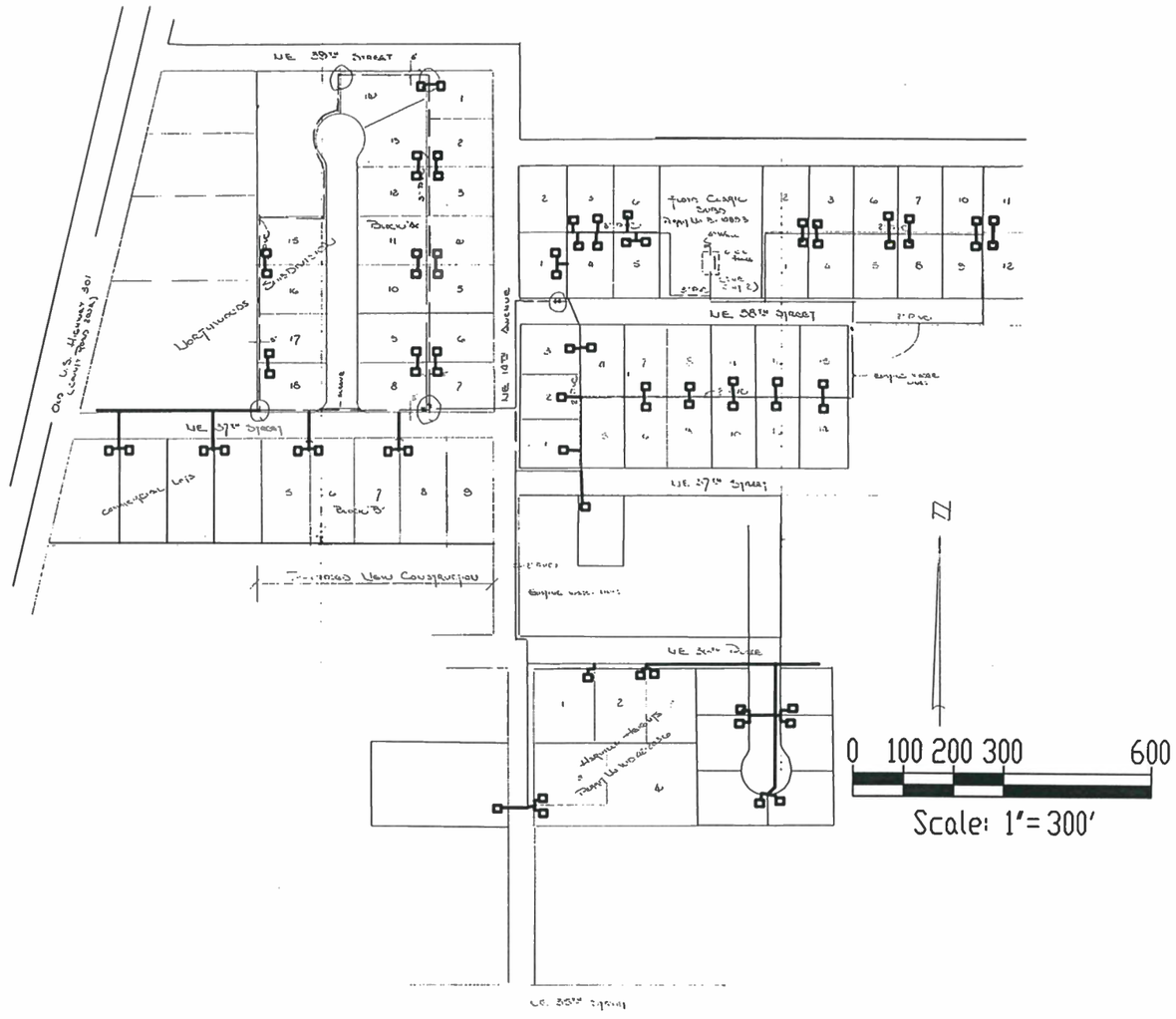
Reviewer Signature

Christine Daniel
Printed Name

Environmental Manager
Title

3/1/18
Date

APPENDIX F: DISTRIBUTION MAP



THIS DRAWING IS A COPY OF AN ORIGINAL OBTAINED FROM SUNSHINE UTILITIES, INC.

Floyd Clark

H.W. BARRINEAU & ASSOCIATES, INC.
3100 SOUTHEAST 17th ST. SUITE 603 OCALA, FLORIDA 34471
TEL (352) 840-6668 FAX (352) 840-6774

HODGES ~~NORTH~~ SOUTH

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

DESCRIPTION	DATE	CHK	DRN
ORIGINAL ISSUE	11 APR 97	HWB	PWM

Project No. 9836-02

1

Sheet 1 Of 1

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Fore Oaks Estates

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Fore Oaks Estates. A summary of the main parameters for the water system are summarized below in Table 1-1.

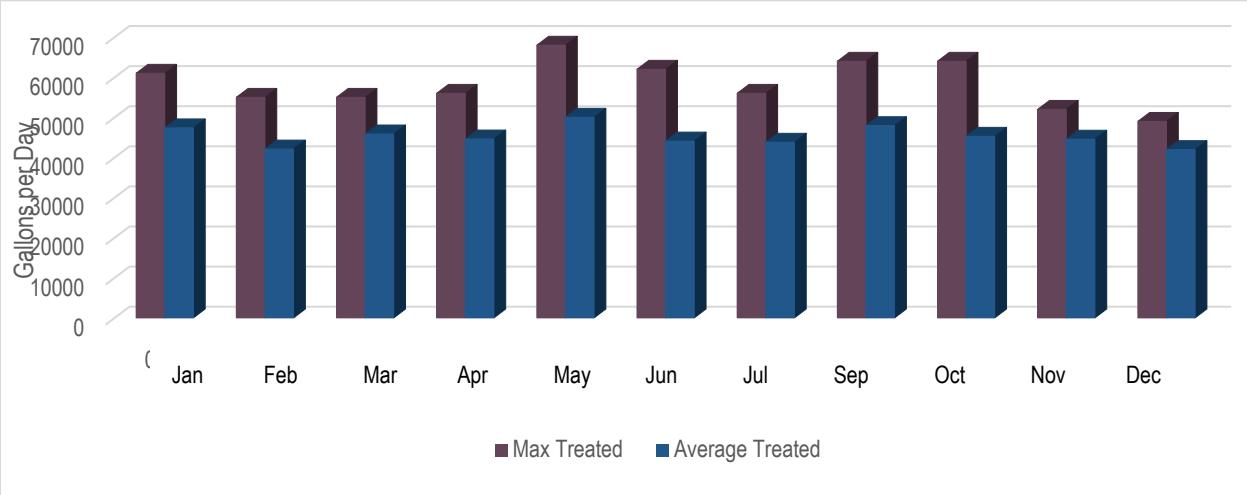
Table 1-1: Fore Oaks Estates System Information

Water System Name	Fore Oaks Estates
PWD ID Number	3424644
Classification	Community
Plant Category & Class	5C
Street Address	5148 NE 1st Avenue
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	793 (Sanitary Survey)
Number of Service Connections	227 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	45,243 GPD (2019 Monthly Reporting)
Maximum Day Water Use	68,000 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	421,200 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Fore Oaks community is depicted in Figure 1-1.

Figure 1-1: Fore Oaks Estates Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two wells onsite, Well 2 and Well 3. Water is pumped from Well 3 though a check valve, 4-inch Sensus flow meter, and an additional check valve with a swing arm. Water is pumped from Well 2 through a 2-inch Sensus flow meter and check valve and then joins with the flow from Well 3 before entering the 10,000-gallon steel hydropneumatic tank. The well turns on when the pressure in the tank is at 40 psi and turns off at 60 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 2	165 feet deep, 225 GPM	1985 (Sanitary Survey)	Fair
Source	Well 3	165 feet deep, 330 GPM	1992 (Sanitary Survey)	Poor
Treatment	Disinfection	Sodium Hypochlorite	Unknown	Poor
Storage	Hydropneumatic Tank	10,000 gallons, Steel	Approx. 1989 (Tank Inspection Report)	Fair
Generator	Generac Generator	38 kW, 47.5 KVA	2015 (Info on Generator)	Good
Building	CMU	8 by 6 feet	Unknown	Fair

2.1.1 Source

Fore Oaks Well 2 is the lag well and is shown in Figure 2-1. The top of the well casing is about 6 inches above grade and within a concrete pad. FDEP requires the well to be a minimum of 12 inches high but will accept the current height as is unless there are any new issues with microbial contamination. The well is 165 feet deep with a submersible Sta-rite 225 GPM pump, 10 HP motor, single phase. Well 2 has a flapper valve with a screen that is used as the air vent, and a sample tap off the top. There is a 2-inch Sensus meter after Well 2, shown in Figure 2-2. It is located within a locked fenced in area, as shown in Figure 2-3, and is about 40 feet from NE 1st Ave.

Figure 2-1: Well 2

Figure 2-2: Well 2 Meter

Figure 2-3: Well 2 Fenced Area

Fore Oaks Well 3 is the lead well and is shown in Figure 2-4. The top of the well casing is about 14 inches off the ground and within a concrete pad. The well is 165 feet deep with a submersible Sta-Rite 330 GPM pump, 20 HP motor, single phase. Well 3 has a flapper valve with a screen on a sample tap that is used as the air vent, and an additional sample tap off the top. There is a capped pipe off the side for the purpose of introducing shock chlorination if needed. Well 3 has a 4-inch Sensus Meter, shown in Figure 2-5. It is located with a locked fenced in area, as shown in Figure 2-6, and is about 30 feet from NE 1st Ave.

At the time of the inspection, the tap that is used as a vent was closed, causing the tank to become waterlogged, and the well pump was starting and stopping frequently.

Figure 2-4: Well 3

Figure 2-5: Well 3 Meter

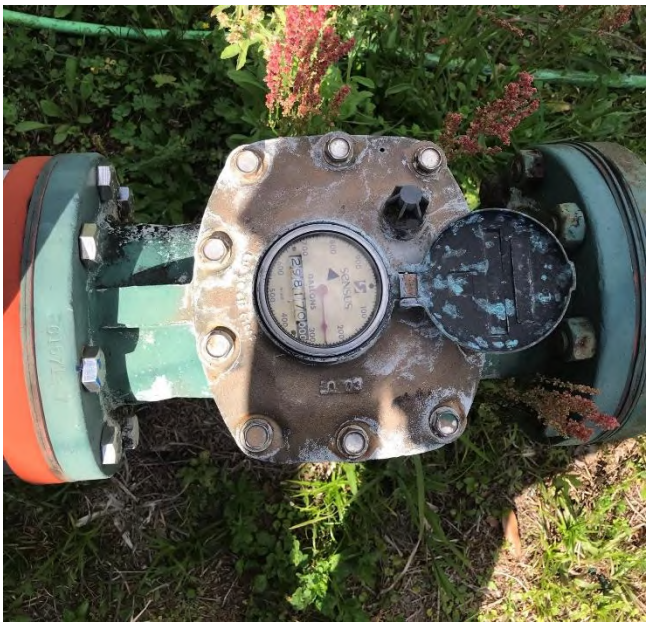


Figure 2-6: Well 3 Fenced Area

The Fore Oaks Well 1 is an abandoned well, but the top of the well casing is still onsite as shown in Figure 2-7. Sunshine Utilities did not know if the well was plugged by filling them bottom to top with grout as required by FL Administrative Code 40D-3.531.

Figure 2-7: Abandoned Well 1

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydro pneumatic tank. The chlorine strength is 10.5% and mixed 1:4 chlorine-water. The chlorine mix is housed in a 35-gallon and a 55-gallon drums located inside the

pump station building as shown in Figure 2-8. One drum is used for storing pure chlorine and the second drum is used for mixing the chlorine and chemical treatment. The chemical pump for Well #2 is a diaphragm 24 GPD Uni-Dose Pump, set at 100% stroke. There is an additional chemical treatment Uni-dose diaphragm pump for lag-well #2, but it had no tubing and was not connected to an outlet. The average distribution residual in 2019 was 0.8 mg/L.

The chlorine pump will turn on when Well #3 pump is energized. The well #3 chemical pump outlet is wired to the Well pump #3 starter.

Table 2-2: Fore Oaks Chemical Metering Pumps

Chemical Pump	Well #2	Well #3
Number of Pumps	1	1
Brand	Uni-Dose	Uni-Dose
Model	UD001-238NU	UD001-238NU
Size	24 GPD	24 GPD

Figure 2-8: Chlorine Treatment

2.1.3 Storage

The Fore Oaks Estates water treatment plant has a 10,000-gallon hydro pneumatic storage tank on-site. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed, and a tank drain located underneath the tank. There were several leak repairs with sleeves on the bypass line, as shown in Figure 2-9. The operating set points for the tank are to turn on the well at 40 psi and turn off at 60 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup. During the inspection, the tank was waterlogged and had a ball valve on sight tube that was leaking.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the tank exterior appeared to be in good structural condition. The interior coating was in fair condition but there were

significant areas where the coating had begun to fail and surface corrosion was noted in various areas throughout the tank interior. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-9: Leak Repairs on Bypass Piping

2.1.4 Pump Station Building

The pump station building is an 8 by 6 feet CMU building with a wooden roof, as shown in Figure 2-10, primarily used for storage of the chlorine mixing tank, injection tank, and facility logbook. The building has no door but has an opening with a width of 4 feet. The building had no evidence of roof leaks or rodents, but the open door provides no containment for spills or protection from weather, rodents, and insects. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite.

Figure 2-10: Pump Station Building and Storage Tank

2.1.5 Back-Up Power

The Fore Oaks plant has a 38 kW Generac Generator unit onsite, as shown in Figure 2-11, to power the well pumps and treatment if there is an interruption in power supply. The generator is automatically exercised one hour per week, and the site is equipped with an automatic transfer switch. The generator runs on propane and is supplied by two 120-gallon propane tanks. At the time of the inspection, one tank was at 80% capacity and the other was at 60% capacity. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-11: Back-up Power Generator

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 23, 2018 and stated that no deficiencies were noted during the inspection. According to the Florida Department of Environmental Protection's database, the Fore Oaks plant received two violations for disinfection by-product monitoring and reporting in November of 2020.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-12), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-12: Rusted Electrical Panel

2.3.2 Source of Supply

A sample tap on Well #3 is being used as a vent. At the time of the inspection, the sample tap was found to be closed, causing issues with the operation of the well. The tap was opened but should be replaced to prevent the issue from reoccurring.

The system has a 2-inch Sensus meter after Well 2 and a 4-inch Sensus meter after Well 3. This meter should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

2.3.3 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there is a 35-gallon and a 55-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by replacing both chemical drums with 30-gallon tanks and storing the on a containment pallet such as the PIG PAK 604 containment pallet with a 66-gallon containment capacity, and keep it stored in the pump station building. An example is shown in Figure 2-13.

Figure 2-13: PIG 66-Gallon Containment Pallet

The ball valve located on the pressure tank sight tube is leaking and should be replaced during the next tank inspection or sooner if the leak becomes worse.

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, with significant areas where the coating had failed. Corrosion was also noted in various areas of the interior. The tank is over fifteen years old, and the interior should be sand blasted and re-coated with a minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in the 1985 and supplies water using a 2 to 6-inch PVC water main in a loop configuration with blowoff valves on dead ends. The loop has gate valves to isolate sections if needed located at most roadway intersections and blow-off points on many of the system dead ends. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Fore Oaks to normal operating conditions are summarized with cost estimates in Table 4-1 through Table 4-3. The total cost estimate for Triage Repairs at Fore Oaks is: **$32,000**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$20,000
Mission Monitoring at Well	$10,000
Total	$31,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,000
Total	$1,000

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Fore Oaks to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Table 4-3 trough Table 4-6. The total cost estimate for Capital Improvements at Fore Oaks is: **$79,500**.

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Well 2 and Well 3 Source Meter	$8,000
Total	$8,000

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$8,000
Total	$19,500

Table 4-5: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

FORE OAKS ESTATES
NE 49TH/2ND AVE/LFT ON NE 51ST
OCALA, FL 34470

Public Water System ID: 3424644
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 793
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5973	WELL#3 6"/84'/165'	AAE0271	ACTIVE	165	Floridan Aquifer
5972	WELL#2 6"/85'/165	AAE0270	ACTIVE	165	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

Fore Oaks Estates Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Fore Oaks Estates
Street Address:	NE 49th/2nd Ave/Left on NE 51st St
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424644
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 6, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
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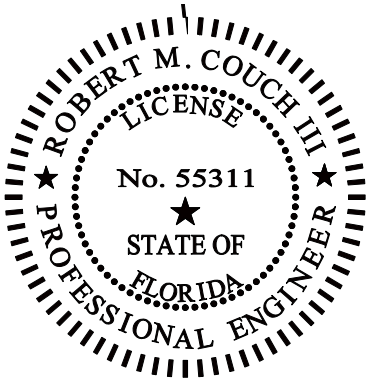

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.05 23:42:59 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 6, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.25 millimeters. UTM readings from the tank heads indicated an average thickness of 9.69 millimeters. The exterior coating of the tank appeared to be in overall fair condition with no notable surface corrosion. The interior coating of the tank appeared to be in overall fair condition. The coating on the tank interior had begun to fail and corrosion was noted on the tank floor and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 48 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 29'-0" (31'-8" including elliptical heads)
Diameter: 7'-7" outside diameter
Volume: 10,000 gallons with elliptical heads
Tank Age: Approximately 29 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had failed.

6.3 Ultrasonic Metal Thickness Testing

A total of 86 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.25 millimeters in the cylindrical section and 9.69 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/2" (12.45 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in fair condition. There were significant areas where the coating had begun to fail on the interior tank surface. There was surface corrosion noted in various areas throughout the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.25 mm / (1137 mm+0.6 x 6.25 mm)
= 0.329 MPa
= 48 psi

When:

t < 0.5R = 0.5 x = 568 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.25 mm
R = inside radius of shell course under consideration (mm) = 1,137 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Fore Oaks Estates 10,000-gallon hydropneumatic pressure tank was performed on December 6, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had failed on various parts of the interior.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed surface corrosion throughout various portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

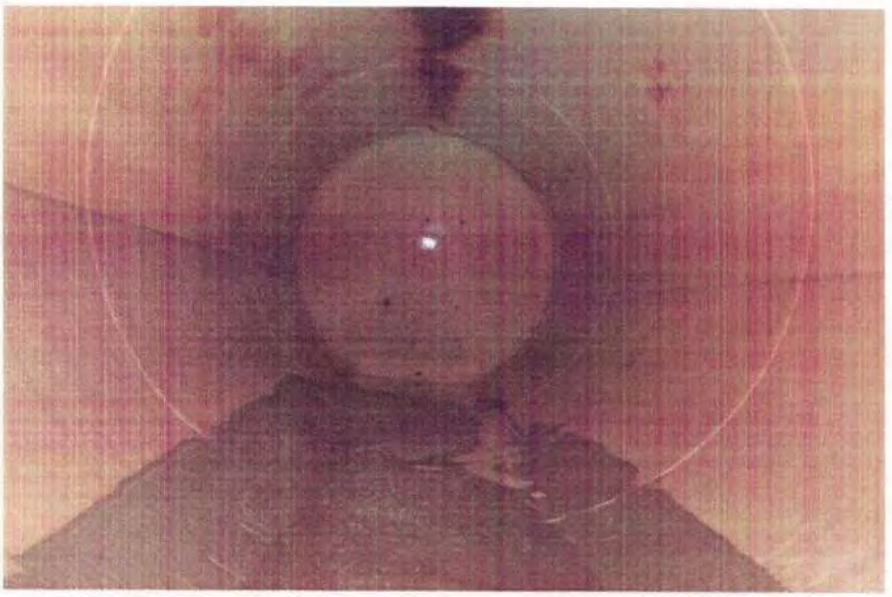
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 48 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/5/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

FORE OAKS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	245
PWS:	3424644
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

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2970 Wellington Circle ~ Suite 101 ~ Tallahassee
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e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" and (1) 8" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because it is only 165 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	47354 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424644**	
System name and address	**FORE OAKS**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**5148 NE 1st Ave**	
Population served and service connections.	Population =	Connections = 245
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	47354 GPD
Maximum Daily Demand (gpd)	62000GPD
System Capacity (gpd)	421200 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	NE 1st AVE	NE 1st AVE		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	165 FT	165 FT		
Well Yield (gpd)	367200GPD	421920GPD		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta-Rite		
Capacity (gpm)	255 GPM	293GPM		
Motor Manufacturer	Franklin	Franklin		
Horsepower	5 HP	20HP		
Phase	3	3		
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Fore Oaks Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424644 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement.
The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ■ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ■ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1,*** 2019 ***, and ending December 31,*** 2019, to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Fore Oaks Estates

Florida Department of Environmental Protection Public Water System ID # 3424644

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

Fore Oaks Estates water system also serves the following communities and businesses; Coventry Subdivision and Ballard Acres. If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228,** during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR FORE OAKS

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	(pCi/L)	MAR'15	No	3.3	N/A	0	15	Erosion of natural deposits
Radium 226 + 228	(pCi/L)	MAR'15	No	3.3	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	JUN'18	No	0.8	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	JUN'18	No	0.003	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	JUN'18	No	1.4	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	JUN'18	No	0.19	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	1.38	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	JUN'18	No	0.6	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	JUN'18	No	7.3	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.8	0.4 - 1.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acid(HAA5)	(ppb)	AUG '19	No	0.63	N/A	N/A	MCL = 60	Byproduct of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL'18	No	0.23	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	JUL'18	No	2.2	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019ForeOaksSD.pdf

APPENDIX E: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **FORE OAKS ESTATES** County Marion PWS ID # **3424644**
Plant Location NE 49th/2nd Avenue/Left of NE 51st, Ocala, FL 34470 Phone 352/347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352/347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352/347-8228
This Survey Date 1/23/18 Last Survey Date 8/19/15 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5C

MAX-DAY DESIGN CAPACITY: 421,200 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 227
Population Served 793 Basis 11/17 MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 5+1 *Actual* 5+1
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 46,423 gpd
Maximum Day (from MORs) 94,00 gpd 5/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 4" Sensus
Date Last Calibrated 8/18/16

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Generac Protector QS
Capacity of Standby (kW) 38
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 1 hr/wk.
What equipment does it operate?
☒ Well Pumps
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☒Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 11/14/12
Comments

PWS ID # 3424644
Date 1/23/19

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**2 (AAE0270)**	**3(AAE0271)**		
Year Drilled		1985	1992		
Depth Drilled		165’	165’		
Drilling Method		Combination	Combination		
Type of Grout		Neat cement	Neat cement		
Static Water Level		30’	58’		
Pumping Water Level		Unknown	Unknown		
Design Well Yield		Unknown	Unknown		
Test Yield		Unknown	Unknown		
Actual Yield (if different than rated capacity)		Unknown	Unknown		
Strainer		Unknown	Unknown		
Length (outside casing)		85’	84’		
Diameter (outside casing)		6”	6”		
Material (outside casing)		Black steel	Black steel		
Well Contamination History		None	None		
Is inundation of well possible?		No	No		
6’ X 6’ X 4” Concrete Pad		Yes	Yes		
SET BACKS	Septic Tank	>200’	>200’		
	Reuse Water	N/A	N/A		
	WW Plumbing	>100’	>100’		
	Other Sanitary Hazard	None observed	None observed		
PUMP	Type	Submersible	Submersible		
	Manufacturer Name	Sta-Rite	Sta-Rite		
	Model Number	Unknown	Unknown		
	Rated Capacity (gpm)	225	330		
	Motor Horsepower	10	20		
Well casing 12” above grade?		No*	Yes		
Well Casing Sanitary Seal		OK	OK		
Raw Water Sampling Tap		Yes	Yes		
Above Ground Check Valve		Yes	Yes		
Security		Yes	Yes		
Well Vent Protection		N/A	Yes		

COMMENTS * The Department will continue to accept the well casing height as it currently exists unless there are signs of microbial or chemical contamination.

PWS ID # 3424644
Date 1/23/19

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech/Uni-Dose Capacity 15/30 gpd
Chlorine Feed Rate 100% /60% strole
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant >2.2 Remote 1.91
Remote tap location 5263 3rd Ave
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	10,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	Both
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	Discharge piping
Date of Inspection	6/13
Date of Cleaning	6/13

Comments Next tank inspection due 6/18.

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

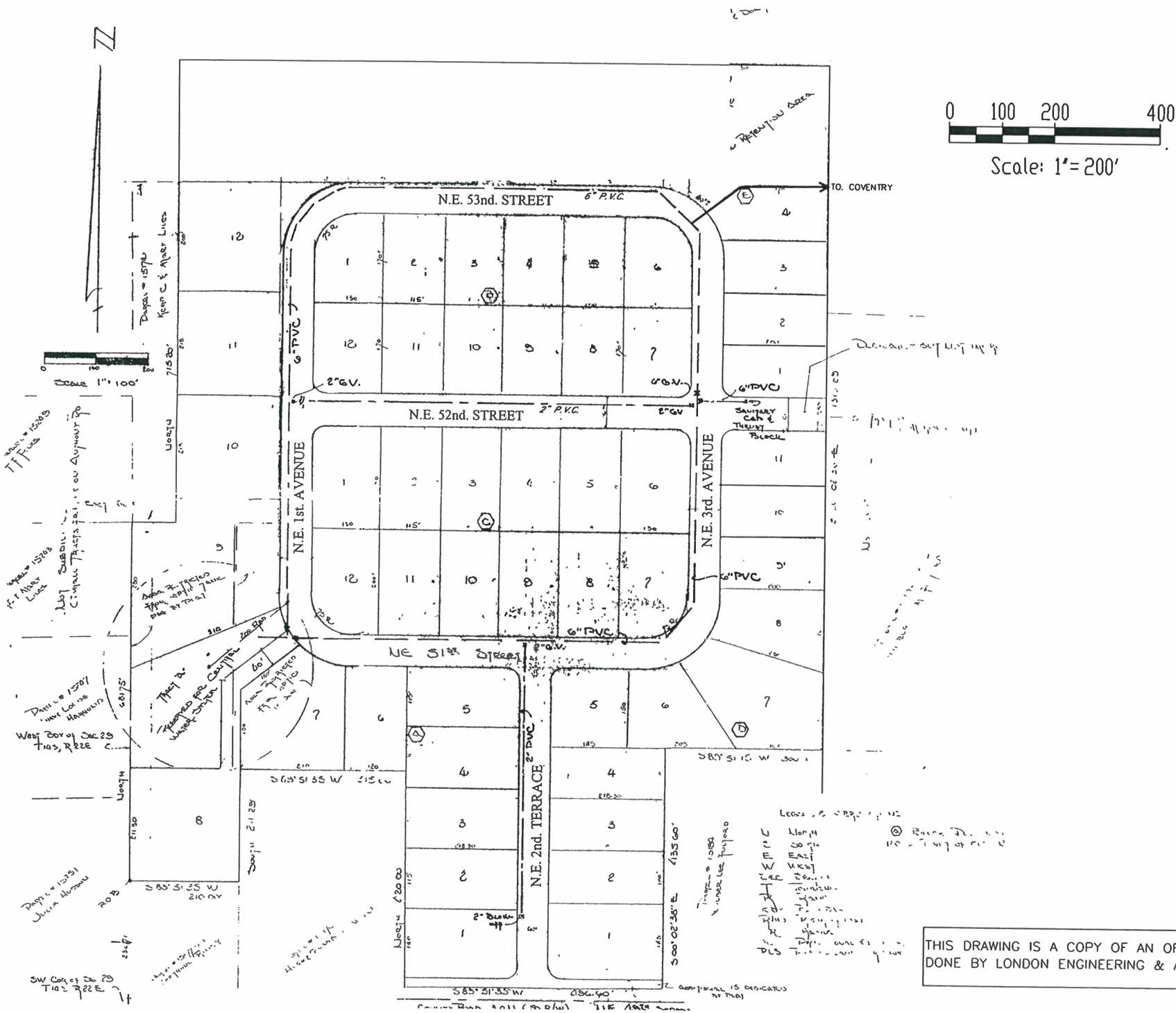
PWS ID # 3424644
Date 1/23/19

COMMENTS (continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

	Christine Daniel
Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18

APPENDIX F: DISTRIBUTION MAP



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H. W. BARRINEAU & ASSOCIATES, INC.
3100 SOUTHEAST 17TH ST., SUITE 808
OCALA, FLORIDA 34471
PH (352) 840-0888
FAX (352) 840-0774

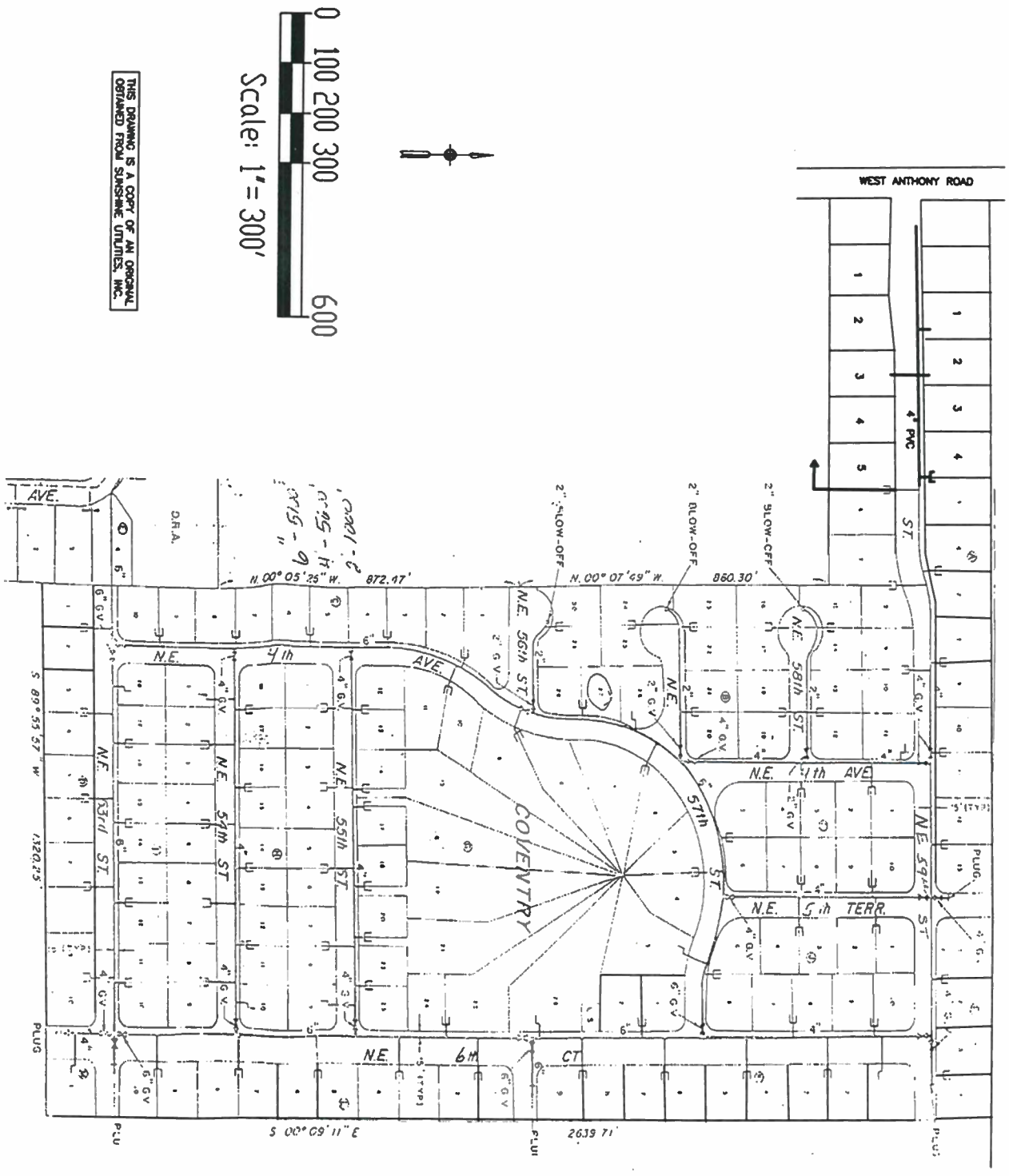
FORE OAKS
SUNSHINE UTILITIES, INC.
MARION COUNTY, FLORIDA

DRN	CHK	DATE	DESCRIPTION
CEL	WHB	23 FEB 00	ORIGINAL ISSUE

Project No. 9636-02

1

Sheet 1 Of 1



DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9639-02

1

Sheet 1 OF 1

COVENTRY

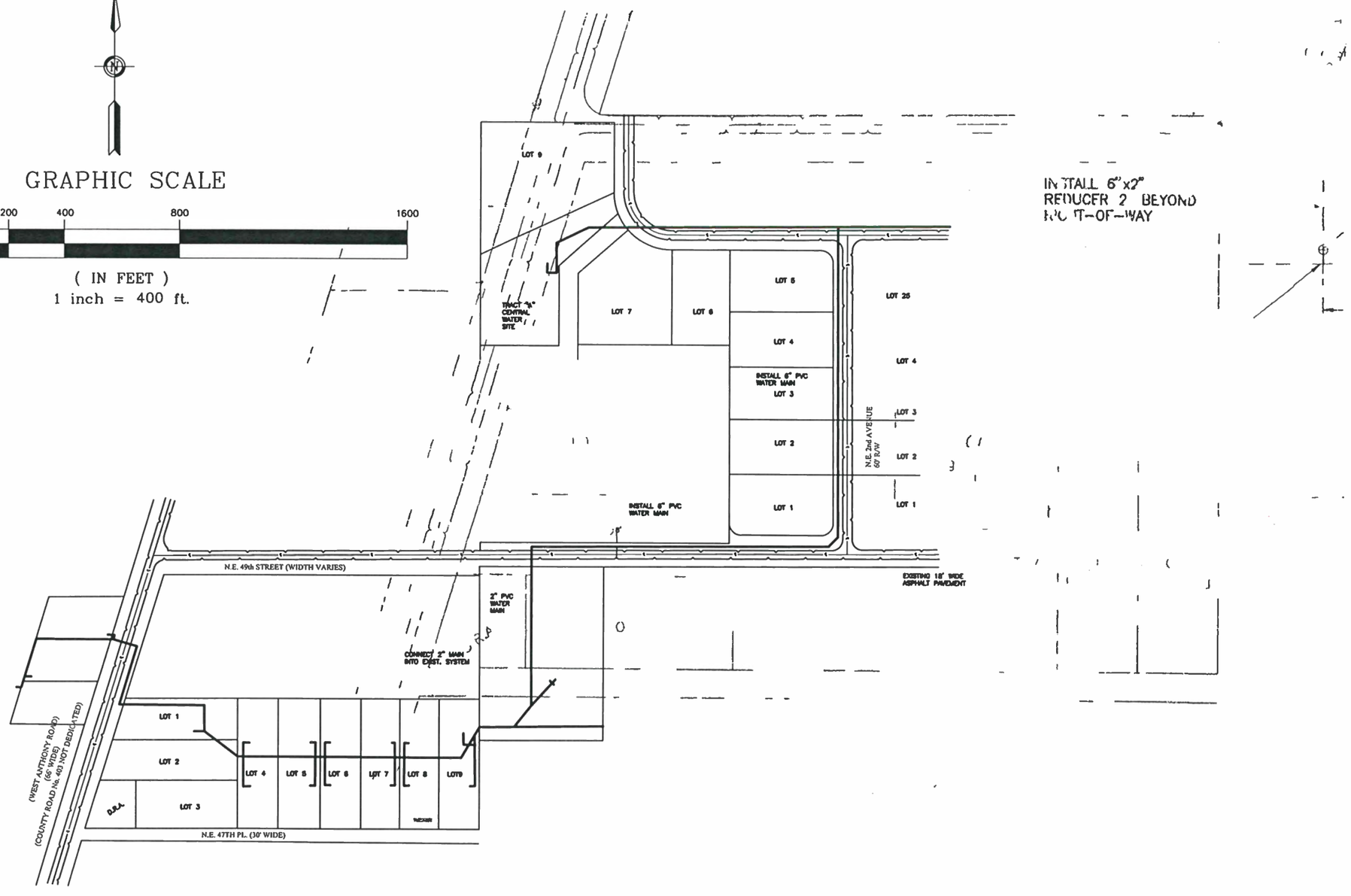
SUNSHINE UTILITIES INC.
OCALA, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST, SUITE 502
OCALA, FLORIDA 34471
FAX (352) 840-9526
(352) 840-9774

GRAPHIC SCALE

400 0 200 400 800 1600

(IN FEET)
1 inch = 400 ft.



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BALLARD ACRES

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

DRW	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9636-02

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Hilltop at Lake Weir Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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2.1.2 Treatment 2-2
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Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Hilltop at Lake Weir. A summary of the main parameters for the water system are summarized below in Table 1-1.

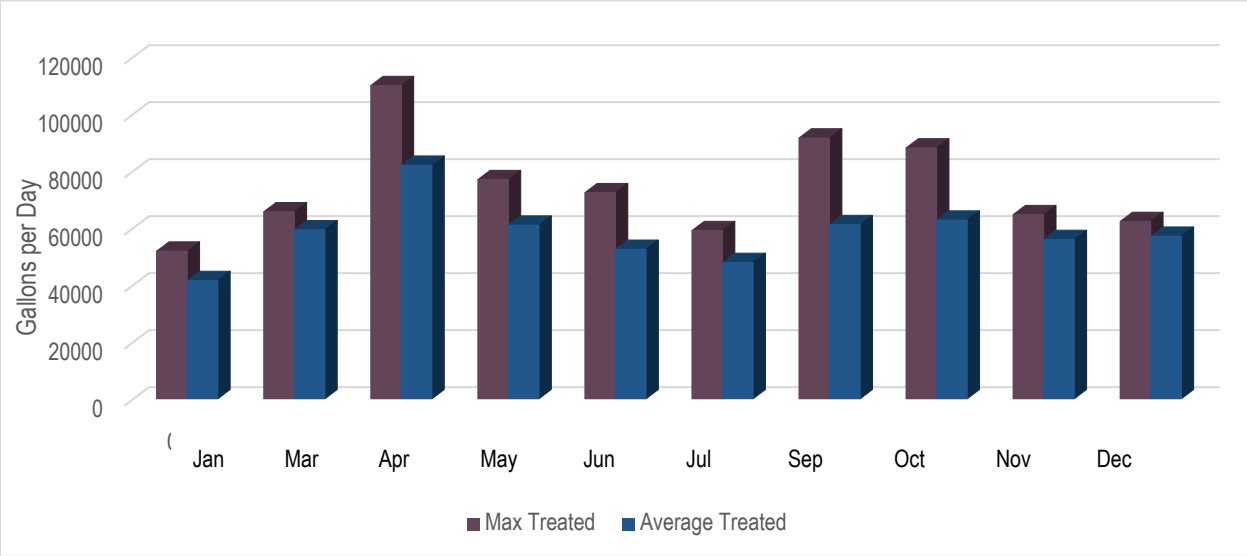
Table 1-1: Hilltop at Lake Weir System Information

Water System Name	Hilltop at Lake Weir
PWD ID Number	3424662
Classification	Community
Plant Category & Class	5C
Street Address	SE 125th Place and CR 25
City, State	Belleview, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	448 (Sanitary Survey)
Number of Service Connections	179 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	58,057 GPD (2019 Monthly Reporting)
Maximum Day Water Use	109,900 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	313,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Hilltop community is depicted in Figure 1-1.

Figure 1-1: Hilltop at Lake Weir Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two water wells onsite, Well 1 and Well 2. Water from Well 1 is pumped through a check valve, ball valve, and flow meter. Water is pumped from Well 2 through a flow meter, check valve and ball valve and then joins with water from Well 1 before entering the 10,000-gallon steel hydropneumatic tank. The well pump turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 4-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side and flows through a 4-inch flow meter and out to distribution.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	224 feet deep, 190 GPM	1984 (Sanitary Survey)	Fair
Source	Well 2	210 feet deep, 245 GPM	2005 (Sanitary Survey)	Fair
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	10,000 gallons, Steel	Unknown	Fair
Generator	Generac Generator	45 kW, 56 kVA	2005 (Info on Generator)	Good
Building	CMU	11.3 by 7.3 feet	Unknown	Poor

2.1.1 Source

Hilltop at Lake Weir Well 1, shown in Figure 2-1, is located next to the tank within a locked fenced in area and is located roughly 2.5 feet from the pump station building. The well is 8 inches off the ground and within a concrete pad. The well is 224 feet deep with a submersible Sta-Rite 190 GPM pump and 15 HP motor. Well 1 acts as a “lag” well and runs whenever more water is needed than Well 2 can supply.

Figure 2-1: Well 1

Hilltop at Lake Weir Well 2, shown in Figure 2-2, is located 50 feet from the road and 20 feet from the hydropneumatic tank. The well is about 14 inches off the ground and within a concrete pad. The well is 210 feet deep with a submersible Grunfos 245 GPM pump and 15 HP motor. The well is equipped with a vent at the top of the well, sample tap, check valve, and a 3-inch Sensus meter. Well 2 serves as the “lead” well and supplies most of the water used in distribution.

Figure 2-2: Well 2

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine used is 10.5% strength and is pumped straight. The chlorine is housed in two 50-gallon drums located in the pump station building as shown in Figure 2-3. The chlorine is delivered through two diaphragm 0.5 GPH Unidose pumps, set at 30% stroke for Well 1 and 100% stroke for Well 2. The chemical metering pumps at the plant are shown in Table 2-2. The average distribution residual in 2019 was 1.1 mg/L.

The chlorine pump will turn on when the pump is energized, and the chemical pump outlet is wired to each of the well pump starters.

Table 2-2: Hilltop at Lake Weir Chemical Metering Pumps

Chemical Pump	Chlorine – Well #1	Chlorine – Well #2
Number of Pumps	1	1
Brand	Uni-Dose	Uni-Dose
Model	U021-281TT	U021-281TT
Size	0.5 GPH	0.5 GPH

Figure 2-3: Chemical Treatment

2.1.3 Storage

The Hilltop at Lake Weir water treatment plant has a 10,000-gallon hydropneumatic storage tank onsite as shown in Figure 2-4. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed, and a drain gate valve located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in January 2019 and stated that the tank interior and exterior appeared to be in fair condition. The report also stated that the tank interior had areas where the tank coating was beginning to fail and there was corrosion noted on the tank interior surface. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-4: Storage Tank

2.1.4 Pump Station Building

The pump station building is an 11-foot 4-inch by 7-foot 4-inch CMU building with a wooden roof primarily used for storage of the chlorine mixing tank, injection tanks, and facility logbook. The building has no door but has an opening with a width of 40 inches. The building had no evidence of roof leaks or rodents, but the open door provides no containment for spills or protection from weather, rodents, and insects. The base of the building is degrading, an example is shown in Figure 2-5. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

Figure 2-5: Building Condition

2.1.5 Back-Up Power

The plant has a 45 kW Generac Generator unit onsite, as shown in Figure 2-6, to power the well pumps if there is an interruption in power supply. The site is equipped with an automatic transfer switch, but the generator is not exercised on a regular interval. The generator runs on propane and is supplied by a 250-gallon storage tank. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-6: Generator and Pump Station Building

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on March 30, 2020 and noted no deficiencies during the inspection. The plant received no violations within the last ten years. Please refer to Appendix E for the Sanitary Survey Report.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time and the building base is degrading. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be necessary for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Source of Supply

The system has a two 3-inch meters after each well. The meters should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 50-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical drums to have more compact 30-gallon tanks and storing the chemicals on a pallet such as the PIG PAK 604 containment pallet with a 66-gallon containment capacity, and keep it stored in the pump station building. An example is shown in Figure 2-7.

Figure 2-7: PIG 66-Gallon Containment Pallet

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, had minor areas where the tank coating was beginning to fail and there was corrosion noted on the side walls of the tank interior. The tank is likely over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1984 and supplies water using a 4 to 6-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed and one blowoff valve located on a dead end. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Hilltop at Lake Weir to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Hilltop at Lake Weir is: **$32,000**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$20,000
Mission Monitoring at Well	$10,000
Total	$31,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,000
Total	$1,000

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Hilltop at Lake Weir to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Table 4-3 through Table 4-6. The total cost estimate for Capital Improvements at Hilltop at Lake Weir is: **$78,500**.

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Two Source Meters	$7,000
Total	$7,000

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$8,000
Total	$19,500

Table 4-5: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

HILLTOP AT LAKE WEIR
SE 125TH PL CR 25
BELLEVIEW, FL 34420

Public Water System ID: 3424662
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 448
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5996	6"WELL 101'/225' 190GPM	AAE0264	ACTIVE	224	Floridan Aquifer
37577	WELL #2	AAI5708	ACTIVE	210	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Exit Disclaimer
Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

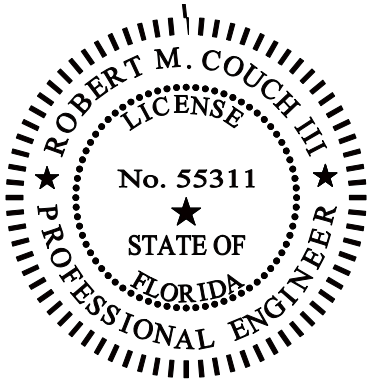
Hilltop at Lake Weir Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Hilltop at Lake Weir
Street Address:	SE 125th Place CR 25
City, State:	Belleview, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424662
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	January 10, 2019

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.02.07 21:44:04 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on January 10, 2019 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.75 millimeters. UTM readings from the tank heads indicated an average thickness of 9.56 millimeters. The exterior coating of the tank appeared to be in overall fair condition with no notable surface corrosion. The interior coating of the tank appeared to be in fair condition with minor surface corrosion beginning to form along the tank ridge and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 50 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 29'-0" (32.'-0" including elliptical heads)
Diameter: 7'-6" outside diameter
Volume: 10,000 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along portions of the tank ridge and walls..

6.3 Ultrasonic Metal Thickness Testing

A total of 80 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.75 millimeters in the cylindrical section and 9.56 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/8" (9.53 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition.

7.2 Tank Interior

The tank interior appeared to be in fair condition. there were minor areas where the coating had begun to fail and corrosion had formed on the interior tank surface.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.75 mm / (1136 mm+0.6 x 6.75 mm)
= 0.355 MPa
= 51 psi

When:

t < 0.5R = 0.5 x 1136 = 568.13 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.75 mm
R = inside radius of shell course under consideration (mm) = 1,136 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Hilltop at Lake Weir 10,000-gallon hydropneumatic pressure tank was performed on January 10, 2019. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already begun to fail.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

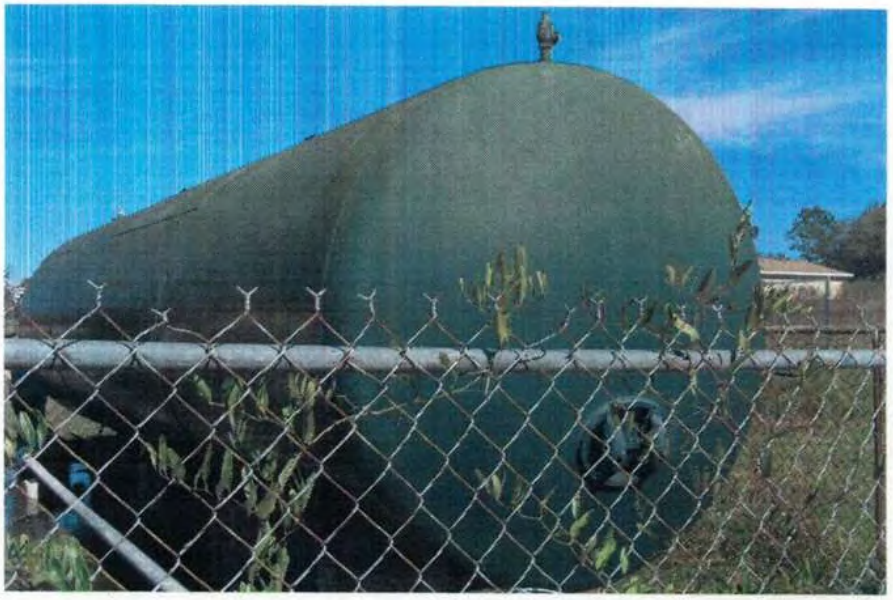
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

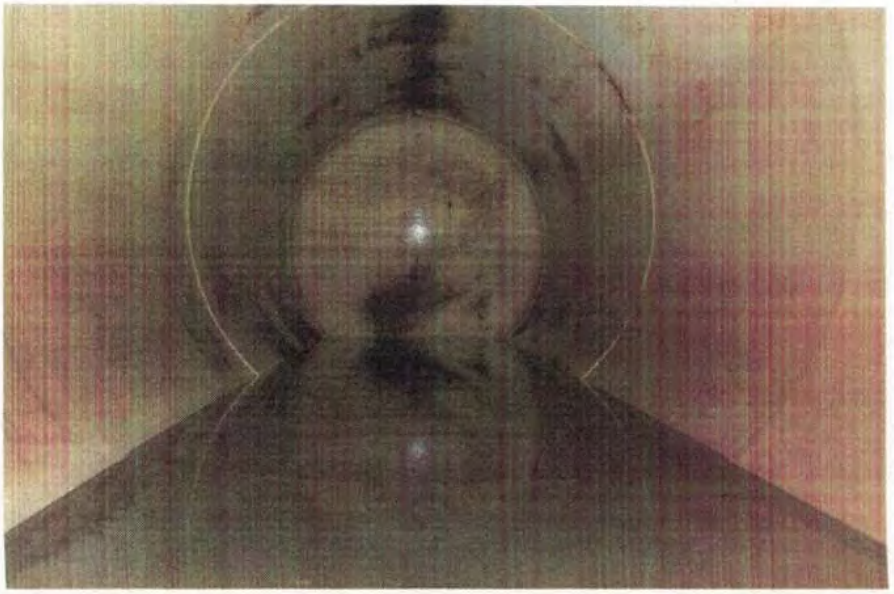
Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 50 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 2/7/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank





APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

HILL TOP

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	220
PWS:	3424662
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 220 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	68506 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	45 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424662**	
System name and address	**HILL TOP**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**12500 SE 102nd Ave**	
Population served and service connections.	Population =	Connections = 220
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	68506 GPD
Maximum Daily Demand (gpd)	75600 GPD
System Capacity (gpd)	313000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	SE 102nd Ave			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	220 FT			
Well Yield (gpd)	2736000 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	190 GPM			
Motor Manufacturer	Franklin			
Horsepower	15 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Hill Top at Lake Weir Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424662 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule?	☒ Yes	☐ No
(B) Is your system regulated by the Public Service Commission (PSC)?	☐ Yes	☐ No
If Yes, was a copy of your CCR sent to the PSC, as required by rule?	☒ Yes	☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019*** to its customers on 4/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Hilltop at Lake Weir

Florida Department of Environmental Protection Public Water System ID # 3424662

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment identifying potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228,** during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR HILLTOP AT LAKE WEIR

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	JUN' 18	No	0.4	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	JUN' 18	No	0.0058	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	JUN' 18	No	1.1	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	JUN' 18	No	0.1	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	2.77	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	JUN' 18	No	7.3	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.2	0.5 - 2.6	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	SEP' 18	No	1.86	N/A	N/A	MCL = 60	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.0118	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019HilltopatLakeWei.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 17, 2020

Dewaine Christmas, Owner/Office manager
Sunshine Utilities of Central FL, Inc.
SE 125th Place CR 25
Belleview, FL 34420
sunshineutl@aol.com

Re: Hilltop at Lake Weir
PW Facility ID #3424662
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on March 30, 2020. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Amada Fernandez at 407-897-4159 or via e-mail at Amada.M.Fernandez@FloridaDEP.gov.

Sincerely,

Jill Farris, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

cc: Amada Fernandez and Jill Farris, FDEP
Universal Waters, universalwaters94@yahoo.com

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **HILLTOP AT LAKE WEIR** County Marion PWS ID # **3424662**
Plant Location SE 125th Place and CR 25, Belleview, FL 34420 Phone 352-347-8228
Owner Name Sunshine Utilities of Central FL, Inc.; Attn: Dewaine Christmas Phone 352-347-8228
Owner Address 10230 East Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Onwer/Office Manager Phone 352-347-8228
This Survey Date 3/30/20 Last Survey Date 3/16/17 Last Compliance Inspection Date 10/15/01

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5C

MAX-DAY DESIGN CAPACITY: 313,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision/Mobile home park
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 179
Population Served 448 Basis Operator

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit* *Actual* Visit*
Days/wk: *Required* 5+1 *Actual* 5+1
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments *Visit must total 0.6 hour/week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 57,478 gpd
Maximum Day (from MORs) 109,900 gpd 04/2019
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 3" ABB / 4" Sensus
Date Last Calibrated 9/26/17

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Generac Generator
Capacity of Standby (kW) 45
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 1 hr/wk.
What equipment does it operate?
☒ Well Pumps Both
☐ High Service Pumps
☒ Treatment Equipment All
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☒Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3424662
Date 3/30/20

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0264)	2 (AAI5708)		
Year Drilled		1984	2005		
Depth Drilled		224’	210’		
Drilling Method		Combination	Combination		
Type of Grout		Neat cement	Neat cement		
Static Water Level		Unknown	80’		
Pumping Water Level		Unknown	Unknown		
Design Well Yield		Unknown	Unknown		
Test Yield		Unknown	Unknown		
Actual Yield (if different than rated capacity)		Unknown	Unknown		
Strainer		Unknown	Unknown		
Length (outside casing)		101’	113’		
Diameter (outside casing)		4’’	6’’		
Material (outside casing)		Black steel	Black steel		
Well Contamination History		None	None		
Is inundation of well possible?		No	No		
6’ X 6’ X 4” Concrete Pad		Yes	Yes		
SET BACKS	Septic Tank	N/A	N/A		
	Reuse Water	>200’	>200’		
	WW Plumbing	>200’	>200’		
	Other Sanitary Hazard	None	None		
PUMP	Type	Submersible	Submersible		
	Manufacturer Name	Sta-Rite	Grunfos		
	Model Number	Unknown	230S150-4		
	Rated Capacity (gpm)	190	245		
	Motor Horsepower	15	15		
Well casing 12” above grade?		Yes	Yes		
Well Casing Sanitary Seal		OK	OK		
Raw Water Sampling Tap		Yes	Yes		
Above Ground Check Valve		Yes	Yes		
Security		Yes	Yes		
Well Vent Protection		N/A	Yes		

COMMENTS _____

PWS ID # 3424662
Date 3/30/20

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make (2) Chem-Tech Capacity 30 gpd
Chlorine Feed Rate 80% stroke / 100% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.57 Remote 1.40
Remote tap location 12345 SE 100th Ct.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	10,000	
Material	Steel	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	Yes	
PRV/ARV	PRV	
Pressure Gauge	Yes	
On/Off Pressure	45/65	
Access Secured	Yes	
Access Manhole	Yes	
Tank Sample Tap Location	Discharge piping	
Date of Inspection	1/19	
Date of Cleaning	1/19	

Comments

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

No deficiencies were noted at the time of the inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2020 results have not been received. Early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2020, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2020.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

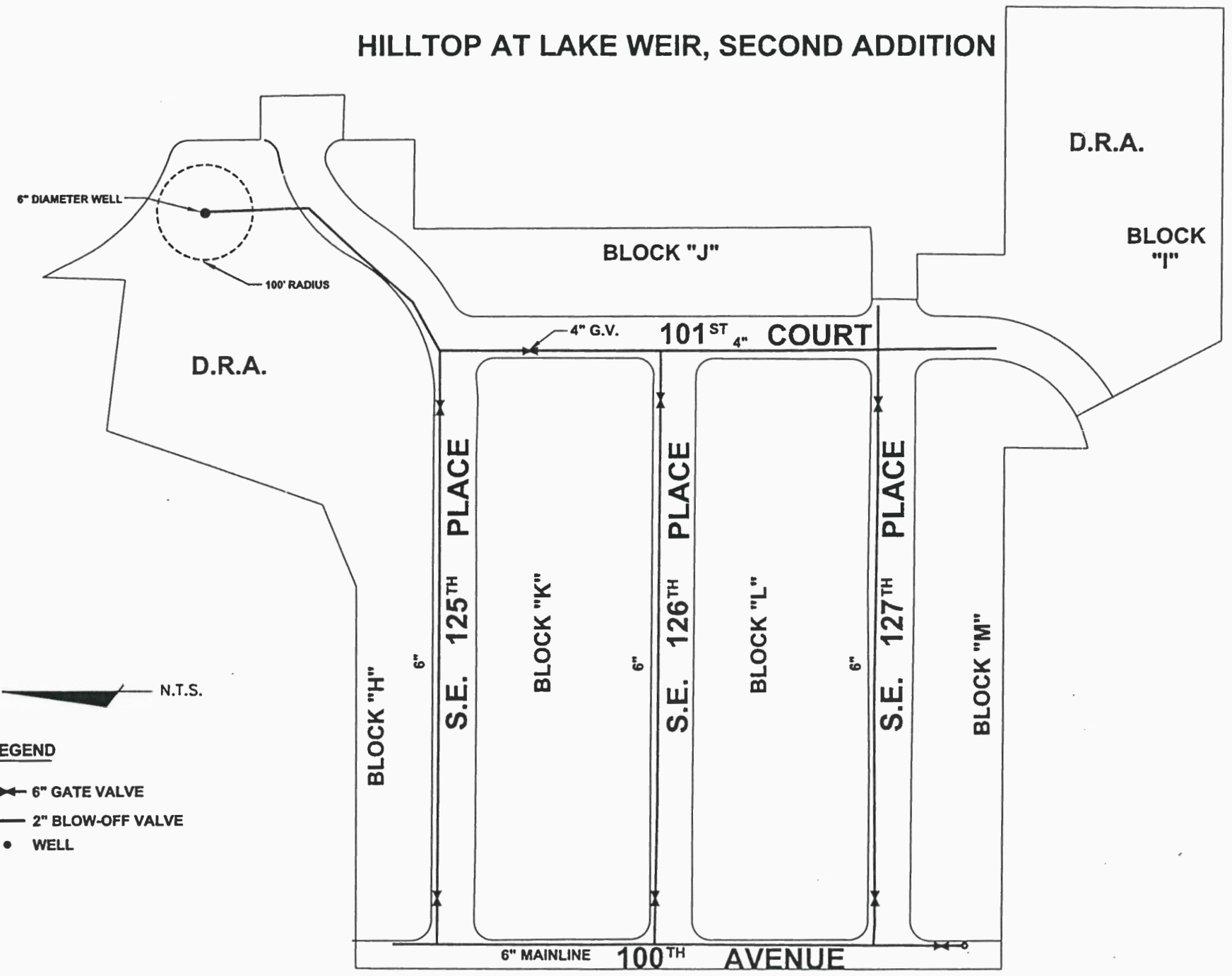
  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

amada fernandez	
Inspector Signature	*Reviewer Signature*
Amada Fernandez	Jill Farris
Printed Name	*Printed Name*
Environmental Specialist II	Environmental Manager
Title	*Title*
4/13/20	4/16/20
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

HILLTOP AT LAKE WEIR, SECOND ADDITION



H. W. BARRINEAU & ASSOCIATES, INC.
8100 SOUTHEAST 17TH ST. SUITE 802 OCALA, FLORIDA 34471
PHONE (352) 840-9588 FAX (352) 840-9774

FACILITY WATER SYSTEM

HILLTOP AT LAKE WEIR
SUNSHINE UTILITIES
BELLEVIEW, FLORIDA

DRN	CHK	DATE	DESCRIPTION
SAO	RJW	14 JUL 99	ORIGINAL ISSUE

Project No. 9636-02

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Little Lake Weir Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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APPENDICES

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Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Little Lake Weir. A summary of the main parameters for the water system are summarized below in Table 1-1.

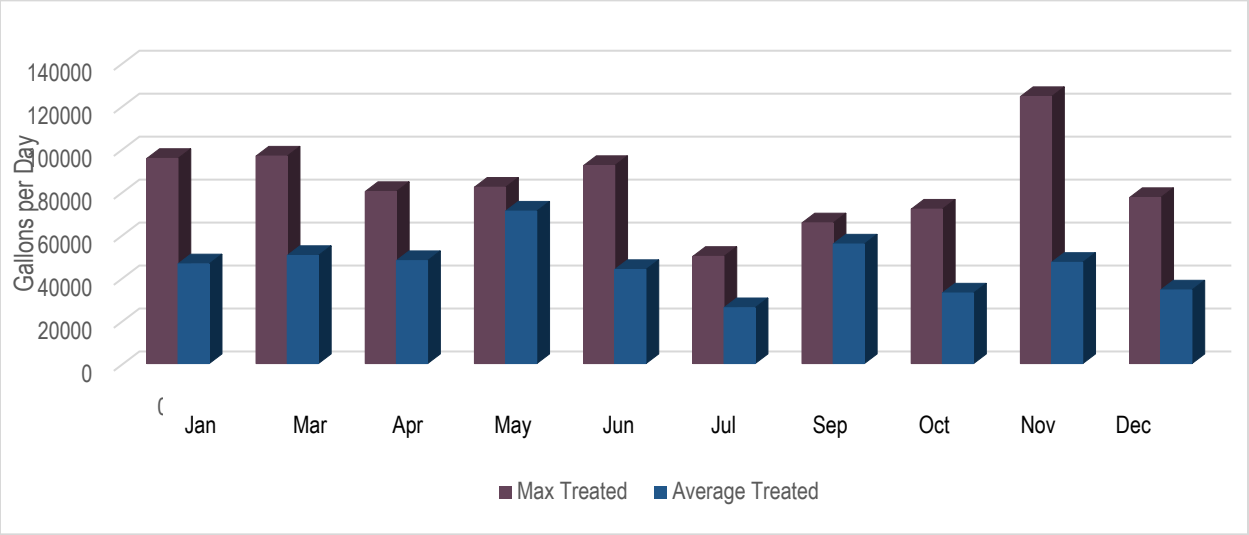
Table 1-1: Little Lake Weir System Information

Water System Name	Little Lake Weir Subdivision
PWD ID Number	3420761
Classification	Community
Plant Category & Class	5D
Street Address	9003 SE 144th Lane
City, State	Summerfield, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	963 (Sanitary Survey)
Number of Service Connections	385 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	45,536 GPD (2019 Monthly Reporting)
Maximum Day Water Use	124,300 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	106,560 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Little Lake Weir community is depicted in Figure 1-1.

Figure 1-1: Little Lake Weir Average Water Use 2019



Source: 2019 Monthly Operating Reports. Monthly Operating Report missing from 02/2019 and 08/2019

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two water wells onsite, Well 1 and Well 2. Water is pumped from Well 1 through a 2-inch Master flow meter and a check valve. Water is pumped from Well 2 through a check valve and a 2-inch Sensus flow meter before going through a 2-inch butterfly valve and a 4-inch gate valve before meeting up with the flow from Well 1 and entering the 5,000-gallon steel hydropneumatic storage tank. The well turns on when the pressure at the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 4-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and goes out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	250 feet deep, 75 GPM	Unknown	Poor
Source	Well 2	170 feet deep, 73 GPM	1980 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	5,000 gallons, Steel	Approx. 1992 (Tank Inspection Report)	Fair
Generator	Kohler Generator	38 kW, 47.5 KVA	Unknown	Fair
Building	Wood	9 by 4 feet	Unknown	Poor

2.1.1 Source

Well 1 is located within a locked fenced in area and is shown in Figure 2-1. The well is one foot from the pump station building and one foot from a roof over generator. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 250 feet deep with a submersible Sta-rite 75 GPM pump with a 5 HP motor. Well 1 has two sample taps, one tap is used as an air vent after a check valve and the second sample tap is used for sampling. Well 1 has a 2-inch Sensus meter. Well 1 acts as the “lag” well, so it only supplies water if the community water demands is greater than what Well 2 can provide.

Figure 2-1: Well 1

Well 2 is the lead well and located with a small locked fenced in area. The well is 170-feet deep with a submersible 73 GPM pump with a 5 HP motor. Well 2 has a two sample taps, typically one sample tap is equipped with a check valve and used as an air vent for the well, but both sample taps had no check valve so the well effectively had no vent. Well 2 has a 2-inch Master Meter. The well and piping has no coating and has signs of rust and corrosion. Well 2 acts as the lead well, so it supplies most of the community water demands.

The top of the well casing is 2 inches above grade and within a concrete pad. FDEP requires the well to be 12-inches off the ground but will accept the current height unless there is evidence of microbial contamination.

Figure 2-2: Well 2

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine strength is 10.5%, is not diluted, and is stored in two 35-gallon drums located outside. There are two chemical pumps, one for each well, however the chemical pump for well #1 was not plugged into an outlet at the time of inspection. The well #1 chemical pump is a diaphragm 15 GPD Chem-Tech Pump, set at 50% stroke, and the well #2 chemical pump is a 24 GPD Uni-dose diaphragm pump set at 25% stroke. The average distribution residual in 2019 was 0.3 mg/L.

The chlorine pumps will turn on when the pumps are energized. Each chemical pump outlet is wired to the well pump starter.

Table 2-2: Little Lake Weir Chemical Metering Pumps

Chemical Pump	Chlorine – Well #1	Chlorine – Well #2
Number of Pumps	1	1
Brand	Chem-Tech	Uni-Dose
Model	Not legible	UD001-238NU
Size	Not legible	1.0 GPH

Figure 2-3: Chlorine Treatment

2.1.3 Storage

The water treatment plant has a 10,000-gallon hydro pneumatic storage tank on-site, shown in Figure 2-4. The tank is plumbed with 4-inch isolation gate valves at the inlet and outlet of the tank with a 4-inch bypass line that is normally closed, and a tank drain located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, and the pressure recorded during the site inspection was 62 psi. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed. The tank was waterlogged at the time of inspection.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in April 2019 and stated that the tank exterior appeared to be in good structural condition. The interior coating was in fair condition with only slight surface corrosion noted along the tank ridge. Please refer to Appendix B for the 2019 Tank Inspection Report.

Figure 2-4: Storage Tank

2.1.4 Pump Station Building

The pump station building is a 9-foot by 4-foot wood building with a wooden roof primarily used for storage of the facility logbook and control panels. The building has a door that opens out with a width of 3 feet. The building has holes that could allow water or insects to enter the building and what appeared to be some water damage on the interior walls. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite.

Figure 2-5: Pump Station Building

Figure 2-6 Pump Station Building Interior

2.1.5 Back-Up Power

The Little Lake Weir plant has a 15 kW Guardian Generator unit onsite to power the well pumps if there is an interruption in power supply. The generator is not exercised on a periodic basis, and the site is equipped with an automatic transfer switch. The generator runs on propane and is supplied by a 120-gallon propane tank. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-7: Back-up Power Generator

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 9, 2020 and noted two deficiencies in the report. The deficiencies were related to biogrowth on the drainpipe of the tank and missing monthly operation reports for February and August of 2019. Sunshine corrected the deficiencies on January 9, 2020 for the biogrowth and January 14, 2020 for the missing reports. According to the Florida Department of Environmental Protection's database, the Little Lake Weir plant received four violations for disinfectants and disinfection byproducts monitoring and reporting in December and March of 2017 but was returned to compliance in December of 2017.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is poor lighting at the site. It is recommended flood lights be installed to allow the site to be safely accessed at night.

The wooden building has holes that could allow water or insects to enter the building and what appeared to be some water damage on the interior walls. It is recommended that the building be upgraded to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Components

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

The generator on site is old and will likely be due for replacement. Standby power is required at this site per Florida Administrative Code 62-555.320 (14) (a).

2.3.2 Source of Supply

On Well #1 there is a sample tap attached to a check valve that is functioning as a vent. The sample tap should be removed to prevent it from accidently being closed, and a screen should be installed.

There is no vent on Well #2, which likely caused the hydropneumatic tank to become waterlogged. A screened vent should be installed on the well.

There is a 2-inch Sensus meter on Well #1 and a 2-inch Master meter on Well #2. These meters should be replaced with meters that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 35-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-8.

Figure 2-8: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, had minor areas where the tank coating was beginning to fail and there was corrosion noted on the side walls of the tank interior. The tank is over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1980 and supplies water using a 2-inch PVC water main in a loop configuration with blowoff valves on dead ends. The loop has gate valves to isolate sections if needed located at most roadway intersections. There are seven blow-off valves in the distribution map. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Little Lake Weir to normal operating conditions are summarized with cost estimates in Tables 4-1 and 4-2. The total cost estimate for Triage Repairs at Little Lake Weir is: **$32,700**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$20,000
Mission Monitoring at Well	$10,000
Total	$31,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Total	$1,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Little Lake Weir to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-6. The total cost estimate for Capital Improvements at Little Lake Weir is: **$112,500**.

Table 4-3: General Plant Capital Improvements

Recommendation	Estimate
Generator Replacement	$35,000
Building and Site Repairs	$25,000
Total	$60,000

Table 4-4: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Two Source Meters	$7,000
Total	$7,000

Table 4-5: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Interior Tank Coating	$7,000
Total	$18,500

Table 4-6: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

LITTLE LAKE WEIR SUBDIVISION
9049 SE 144TH LN
SUMMERFIELD, FL 34420

Public Water System ID: 3420761
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 963
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
24132	WELL #2(NORTH)	AAE0262	ACTIVE	170	Floridan Aquifer
5581	LITTLE LAKE WEIR S WELL	AAE0263	ACTIVE	250	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

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Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

Little Lake Weir Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Little Lake Weir Subdivision
Street Address:	SE 144th Lane & SE 90th Court
City, State:	Belleview, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3420761
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	November 28, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
15290 SE Highway 42, PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com

ROBERT M. COUCH III
LICENSE
No. 55311
STATE OF FLORIDA
PROFESSIONAL ENGINEER

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.05 23:13:38 -05'00'

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11.0 RECOMMENDATIONS. 19

1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on November 28, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.08 millimeters. UTM readings from the tank heads indicated an average thickness of 6.73 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. The interior coating of the tank appeared to be in fair condition with only slight surface corrosion beginning to form along portions of the tank ridge where the coating was beginning to fail.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 58 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 23'-7" (26'-5" including elliptical heads)
Diameter: 6'-0" outside diameter
Volume: 5,000 gallons with elliptical heads
Tank Age: Approximately 26 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along the tank ridge.

6.3 Ultrasonic Metal Thickness Testing

A total of 64 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.08 millimeters in the cylindrical section and 6.73 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in fair condition. There was only slight surface corrosion noted along the tank ridge.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.08 mm / (908 mm+0.6 x 6.08 mm)
= 0.400 MPa
= 58 psi

When:

t < 0.5R = 0.5 x 908 = 453.83 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.08 mm
R = inside radius of shell course under consideration (mm) = 908 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 58 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Little Lake Weir subdivision 5,000-gallon hydropneumatic pressure tank was performed on November 28, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already begun to fail.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

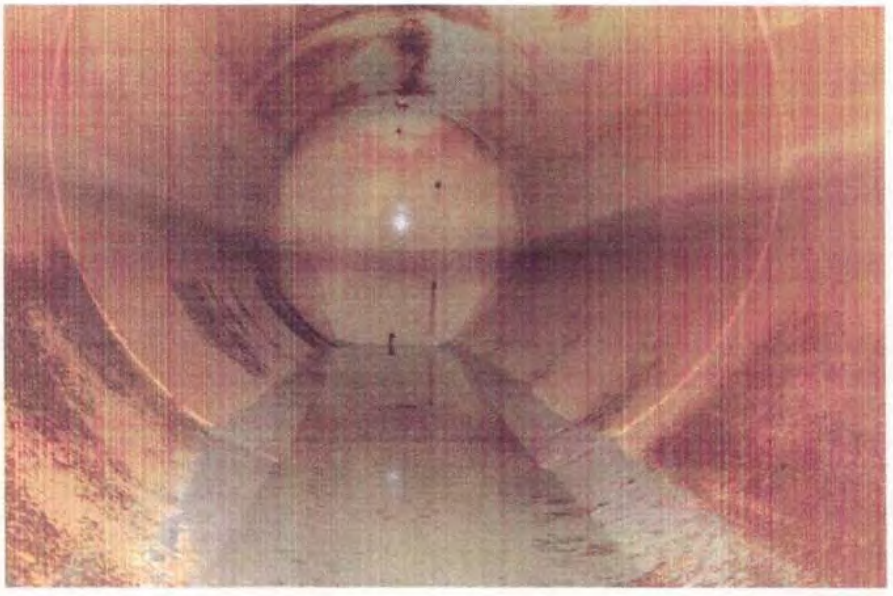
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 58 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/5/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

LITTLE LAKE WEIR

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	422
PWS:	3420761
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
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e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(2) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because it is only 250 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	82780 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3420761**	
System name and address	**LITTLE LAKE WEIR**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**9003 SE 144th LN**	
Population served and service connections.	Population =	Connections = 422
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	82780 GPD
Maximum Daily Demand (gpd)	94900 GPD
System Capacity (gpd)	106560 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	SE 144th Ave	Se 144th Ave		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	250 FT	170		
Well Yield (gpd)	47520 GPD	122400 GPD		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta- Rite		
Capacity (gpm)	33 GPM	85 GPM		
Motor Manufacturer	Franklin	Franklin		
Horsepower	3 HP	5HP		
Phase	1	1		
Volts/Amps	230 volts	230 Volts		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Little Lake Weir Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3420761 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

☐ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: _____

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Little Lake Weir

Florida Department of Environmental Protection Public Water System ID # 3420761

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp*.

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR LITTLE LAKE WEIR

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAR'18	No	0.4	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAR'18	No	0.0072	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	MAR'18	No	1.5	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	MAR'18	No	0.061	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	3.66	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	MaR'18	No	0.6	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	MAR'18	No	6.0	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.7	0.3 - 1.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	AUG'19	No	3.43	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	AUG'19	No	0.39	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	AUG'18	No	0.04	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	AUG'18	No	2.9	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019LittleLakeWeir.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

January 31, 2020

Dewaine Christmas, Owner
Sunshine Utilities
9049 SE 144th Ln
Summerfield, FL 34420
sunshineutl@aol.com

Re: Little Lake Weir Subdivision
PW Facility ID #3420761
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on January 9, 2020. Based on the information provided during and following the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Miranda Rothenberger at 407-897-4301 or via e-mail at Miranda.Rothenberger@FloridaDEP.gov.

Sincerely,

Daniel K. Hall, Manager
Central District
Florida Department of Environmental Protection

Enclosure: January 9, 2020 Inspection Report

cc: Miranda Rothenberger, FDEP

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **LITTLE LAKE WEIR SUBDIVISION** County Marion PWS ID # **3420761**
Plant Location 9049 SE 144th Ln, Summerfield, FL 34420 Phone 352-347-8228
Owner Name Sunshine Utilities of Central FL, Inc. Phone 352-347-8228
Owner Address 10230 E Hwy 25, Belleview, FL 34420
Contact Person Dewaine Christmas Title Manager Phone 342-347-8228
This Survey Date 01/09/2020 Last Survey Date 03/16/2017 Last Compliance Inspection Date 10/15/2001

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 106,560 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 385
Population Served 963 Basis MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments 3 visits/week on nonconsecutive days for a total of 0.3 hour/week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☐ Yes ☒ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) *46,788 gpd
Maximum Day (from MORs) 124,300 gpd 11/2019
Comments MOR missing from 02/2019 and 08/2019.
*not accurate, missing two months from 2019.

Flow Measuring Device Flow Meter
Meter Size & Type 2" Sensus / 2" Master
Date Last Calibrated 01/24/2020 / 10/16/2018

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Onan Diesel
Capacity of Standby (kW) 80
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 2 hrs/mo.
What equipment does it operate?
☒ Well Pumps
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☒Yes ☐No
Comments Auto-Dialer

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs # Tested
WWTP RPZ Date Tested
Written Plan Date
Comments

PWS ID # 3420761
Date 01/09/2020

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0263)	2 (AAE0262)		
Year Drilled		Unknown	1980		
Depth Drilled		250’	170’		
Drilling Method		Cable tool	Rotary drill		
Type of Grout		Neat cement	Neat cement		
Static Water Level		Unknown	Unknown		
Pumping Water Level		Unknown	Unknown		
Design Well Yield		Unknown	Unknown		
Test Yield		Unknown	Unknown		
Actual Yield (if different than rated capacity)		Unknown	Unknown		
Strainer		Unknown	Black steel		
Length (outside casing)		Unknown	142’		
Diameter (outside casing)		4”	4”		
Material (outside casing)		Unknown	Black iron		
Well Contamination History		None	None		
Is inundation of well possible?		No	No		
6’ X 6’ X 4” Concrete Pad		Yes	Yes		
SET BACKS	Septic Tank	N/A	N/A		
	Reuse Water	>200’	>200’		
	WW Plumbing	>200’	>200’		
	Other Sanitary Hazard	None observed	None observed		
PUMP	Type	Submersible	Submersible		
	Manufacturer Name	Unknown	Unknown		
	Model Number	Unknown	Unknown		
	Rated Capacity (gpm)	75	73		
	Motor Horsepower	5	5		
Well casing 12” above grade?		Yes	No*		
Well Casing Sanitary Seal		OK	OK		
Raw Water Sampling Tap		Yes	Yes		
Above Ground Check Valve		Yes	Yes		
Security		Yes	Yes		
Well Vent Protection		N/A	N/A		

COMMENTS *The Department will continue to accept the well casing as it currently exists unless it is shown to contain chemical or microbial contamination.

PWS ID # 3420761
Date 01/09/2020

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem Tech/Unidose Capacity 15/12 gpd
Chlorine Feed Rate 50%/30% Stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 0.32 Remote N/A
Remote tap location Remote not collected
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info
Comments Two chlorine pumps in use.

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H
Capacity (gal)	5,000
Material	Steel
Gravity Drain	Yes*
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	on tank
Date of Inspection	11/2018
Date of Cleaning	11/2018

Comments *Bio-growth found on the gravity drain.

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
Biogrowth on drain pipe of the tank(s)	62-555.350(2)	Remove the biogrowth.	01/09/2020	No
Monthly Operation Reports(MORs) are missing for 02/2019 and 08/2019	62-555.350(12)(b)	Submit a copy of the 02/2019 and 08/2019 MORs to the Department.	01/14/2020	No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2020 samples have not been received, early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2020, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2020.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the

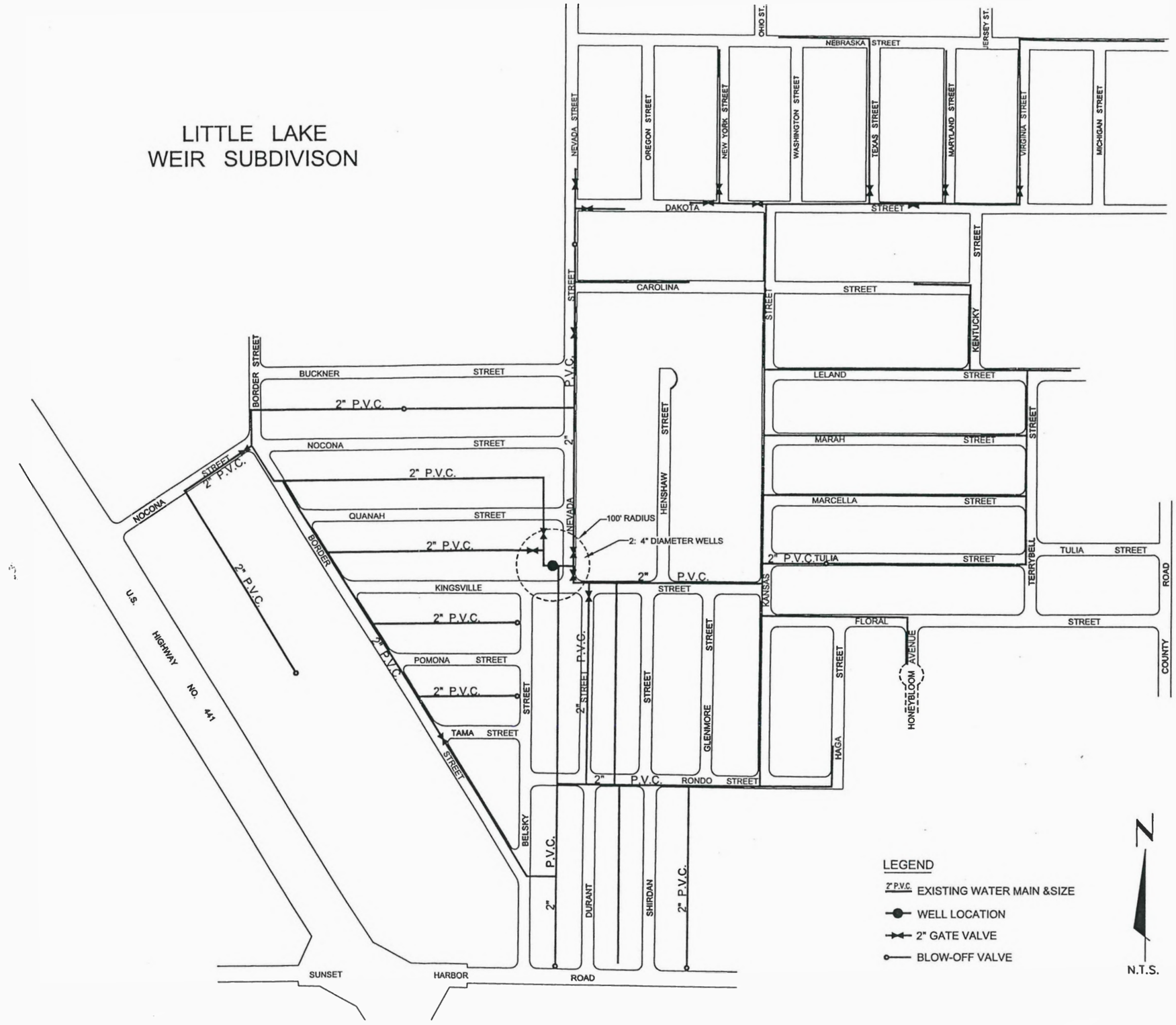
Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

M E Rothenberger	Daniel K Hall
Inspector Signature	*Reviewer Signature*
Miranda Rothenberger	Daniel K. Hall
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
01/30/2020	January 31, 2020
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

LITTLE LAKE WEIR SUBDIVISON



H. W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17TH ST. SUITE 802 OCALA, FLORIDA 34471
PHONE (352) 840-8588 FAX (352) 840-9774

FACILITY WATER SYSTEM
LITTLE LAKE WEIR SUBDIVISION
SUNSHINE UTILITIES
BELLEVIEW, FLORIDA

DRW	CHK	DATE	DESCRIPTION
SAO	RJW	14 JUL 99	ORIGINAL ISSUE

Project No. 9636-02

1

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Oak Haven
Quadruplexes

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Oak Haven Quadruplexes. A summary of the main parameters for the water system are summarized below in Table 1-1.

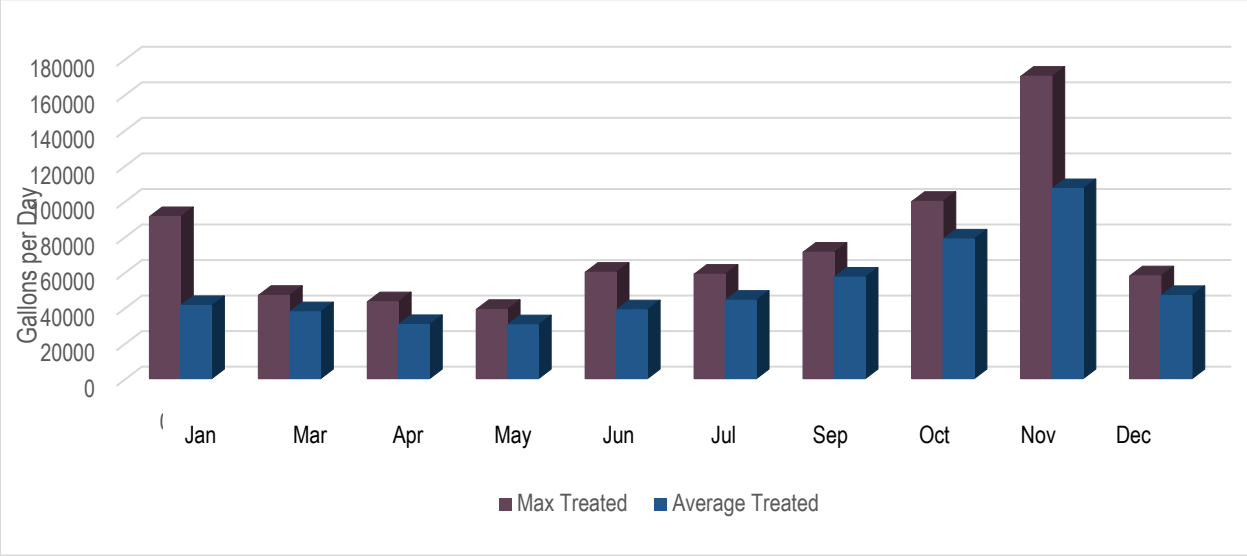
Table 1-1: Oak Haven System Information

Water System Name	Oak Haven Quadruplexes
PWD ID Number	3424106
Classification	Community
Plant Category & Class	5C
Street Address	4224 NW 21st Avenue
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	103 (Sanitary Survey)
Number of Service Connections	41 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	51,212 GPD (2019 Monthly Reporting)
Maximum Day Water Use	170,200 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	288,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

The Oak Haven Water System uses a very high amount of water for the system size. The system representative offered an explanation that there are two complexes that each have multiple quads in each. Each complex has their own master meter. The system representative did not know the population of the complexes, or if the listed population was inaccurate. Potable water usage in the Oak Haven community is depicted in Figure 1-1.

Figure 1-1: Oak Haven Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 through a check valve and a 3-inch Master Meter flow meter into a 5,000-gallon steel hydropneumatic tank. The well turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine and phosphate are injected for disinfection and metal sequestration, respectively, prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and flows out to two separate distribution pipelines. The plant also has 4 blowoff valves and two system shutoff valves for the two discharge pipelines.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	285 feet deep, 400 GPM	1982 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Treatment	Corrosion Control	Aqua Gold	Unknown	Poor
Storage	Hydropneumatic Tank	5,000 gallons, Steel	Approx. 2008 (Tank Inspection Report)	Fair

2.1.1 Source

Oak Haven Well 1, shown in Figure 2-1, is located next to the tank within a locked fenced in area and is located 10 feet from the road. The well is 10 inches off the ground and within a concrete pad. The well is 285 feet deep with a submersible Sta-Rite 400 GPM pump and a 30 HP motor at 230 Volts. There is a bleeder vent that is used as the air vent, and a sample tap off the top. The well casing appeared to have some rusting on casing and was missing a screen on the air vent. The well has a 3-inch Master meter, shown in Figure 2-2.

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

Figure 2-2: Source Meter

2.1.2 Treatment

Chlorine and poly phosphate are injected for the purpose of disinfection and corrosion control, respectively, prior to the hydropneumatic tank, shown in Figure 2-3. The chlorine strength is 10.5% and is not diluted. The poly phosphate chemical brand is Aqua Gold, and it is stored in a 30-gallon drum. There are five 30-gallon drums of poly phosphate onsite. The Chlorine is stored in a 300-gallon tank. Both chemical treatment storage tanks are located outdoors. The chlorine pump is a diaphragm 30 GPD Unidose, set at 80% stroke. The phosphate pump is a peristaltic 17 GPD Stenner set at 30% stroke. The chemical metering pumps at the plant are shown in Table 2-2. The average distribution residual in 2019 was 3.0 mg/L.

The chlorine and phosphate pumps will turn on when the pump is energized. The chemical pump outlets are wired to the well pump starter.

Table 2-2: Oak Haven Chemical Metering Pumps

Chemical Pump	Chlorine	Poly Phosphate
Brand	Uni-Dose	Stenner
Model	U041-281TT	85MHP17
Size	1.25 GPH	17 GPD

Figure 2-3: Chemical Treatment

2.1.3 Storage

The Oak Haven water treatment plant has a 5,000-gallon hydropneumatic storage tank onsite, shown in Figure 2-4. The tank is plumbed with 3-inch butterfly valve at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed and a ball valve to drain the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and the report stated that the exterior was in overall good condition and the interior of the tank appeared to be in fair condition. The tank interior did have slight corrosion noted on the tank ridge. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-4: Storage Tank

2.1.4 Pump Station Building

The treatment plant has no building onsite. The well, tank, and chemical treatment is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite. There is heavy vegetation above and around the site.

2.1.5 Back-Up Power

There is no emergency generator onsite or quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on September 26, 2018 and had one deficiency regarding a late tank inspection. The plant was returned to compliance on January 8, 2019. The plant has received no violations in the last 10 years, and no positive bacteria results were noted during 2019 monthly sampling. Please refer to Appendix E for the Sanitary Survey Report.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is poor lighting at the site, and it is recommended that flood lights be installed to allow the site to be safely accessed at night.

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail

- System Pressure
- Chlorine Level

2.3.1.1 Electrical Components

From the site visit and visual of the electrical components (example shown in Figure 2-5), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended that a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-5: Well Starter Outlet

2.3.2 Source of Supply

Well #1 has a check valve functioning as a vent. A screen should be installed to prevent contamination.

There is a 3-inch Master meter on Well #1. This meter should be replaced with meters that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

2.3.3 Water Treatment and Pumping

The chlorine injection point was noted to be leaking at the time of the inspection. This should be fixed or replaced.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there is a 300-gallon tank for chlorine, and five 30-gallon containers for the polyphosphate. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals, and the extra containers of the polyphosphate should be removed. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chlorine bulk tank with a more compact 275-gallon intermediate bulk

container (IBC), and storing the chemicals in an enclosed container such as the PIG IBC Roll Top Hardcover Spill Pallet, with a 360-gallon containment capacity. An example is shown in Figure 2-6.

Figure 2-6: PIG 275-gallon IBC and Enclosure

For the polyphosphate, two tanks should be stored in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-7.

Figure 2-7: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, with only slight surface corrosion noted. This should be re-checked in the next tank inspection.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1982 and supplies water to four blocks using a 1.5 to 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed, and one blowoff valve in the Northside Villas. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home as its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Oak Haven to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Oak Haven is: **$31,500**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1000
Upgrade Electrical	$15,000
Mission Monitoring at Well	$10,000
Total	$26,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$5,500
Total	$5,500

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Oak Haven to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-4 through Table 4-7. The total cost estimate for Capital Improvements at Oak Haven is: **$67,000.**

Table 4-4: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Two Source Meters	$3,500
Total	$3,500

Table 4-5: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$11,500

Table 4-6: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-7: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

OAK HAVEN QUADRUPLEXES
4224 NW 21ST AVE
OCALA, FL 34475

Public Water System ID: 3424106
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 103
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5816	6"/285'/147'	AAE0269	ACTIVE	285	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING
of
HYDROPNEUMATIC TANK

Oak Haven Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Oak Haven Subdivision
Street Address:	Corner NW 42nd Street & NW 22nd Avenue
City, State:	Belleview, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424106
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 6, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com

ROBERT M. COUCH III
LICENSE
No. 55311
STATE OF FLORIDA
PROFESSIONAL ENGINEER

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.05 23:21:16 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 6, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.35 millimeters. UTM readings from the tank heads indicated an average thickness of 7.76 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. The interior coating of the tank appeared to be in fair condition with only slight surface corrosion beginning to form along portions of the tank ridge where the coating was beginning to fail.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 61 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 23'-2" (25'-2" including elliptical heads)
Diameter: 6'-0" outside diameter
Volume: 5,000 gallons with elliptical heads
Tank Age: Approximately 10 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along the tank ridge.

6.3 Ultrasonic Metal Thickness Testing

A total of 69 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.35 millimeters in the cylindrical section and 7.76 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in fair condition. There was only slight surface corrosion noted along the tank ridge.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.35 mm / (908 mm+0.6 x 6.35 mm)
= 0.400 MPa
= 61 psi

When:

t < 0.5R = 0.5 x 908 = 453.83 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.35 mm
R = inside radius of shell course under consideration (mm) = 908 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 0.400 MPa = 61 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Oak Haven subdivision 5,000-gallon hydropneumatic pressure tank was performed on December 6, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already begun to fail.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

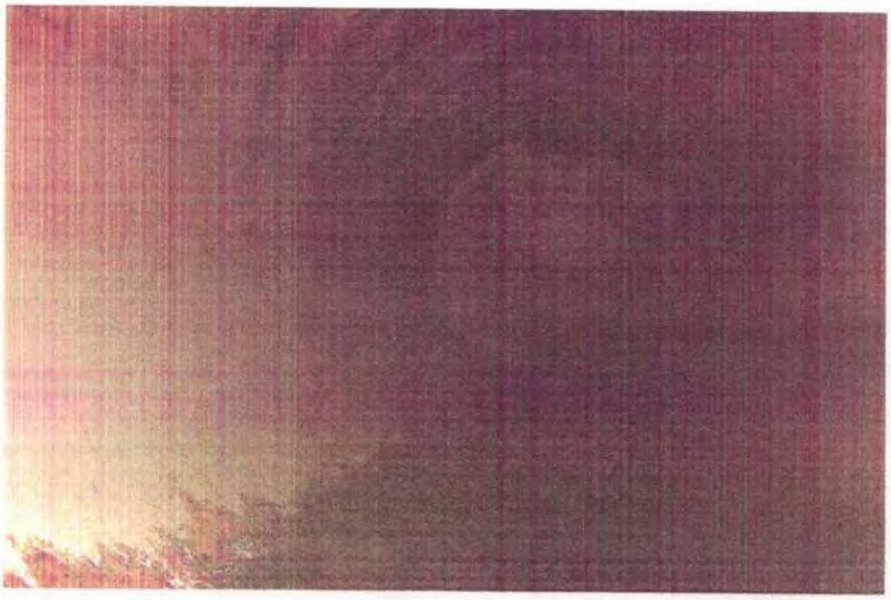
- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.
- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 61 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/5/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

OAK HAVEN

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	71
PWS:	3424106
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 285 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	40858 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	25 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424106**	
System name and address	**OAKHAVEN**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**4224 NW 21st AVE**	
Population served and service connections.	Population =	Connections = 71
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	40858 GPD
Maximum Daily Demand (gpd)	53500GPD
System Capacity (gpd)	288000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	NW 42nd St			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	285 FT			
Well Yield (gpd)	129600 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	90 GPM			
Motor Manufacturer	Franklin			
Horsepower	7.5 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Oak Haven Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424106 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule?	☒ Yes	☐ No
(B) Is your system regulated by the Public Service Commission (PSC)?	☐ Yes	☐ No
If Yes, was a copy of your CCR sent to the PSC, as required by rule?	☒ Yes	☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Oak Haven

Florida Department of Environmental Protection Public Water System ID # 3424106

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes and an approved sequestering agent is added for corrosion control. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp*.

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019 and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR OAK HAVEN

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Antimony	(ppb)	JUN '18	No	0.2	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	(ppb)	JUN '18	No	1	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	JUL '15	No	0.007	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	JUN '18	No	1.6	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	JUN '18	No	0.26	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Lead (point of entry)	(ppb)	JUN '18	No	0.6	N/A	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Sodium	(ppm)	JUL '18	No	23	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	3.3	N/A	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	AUG '19	No	6.89	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	AUG '19	No	10.1	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.98	1	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019OakHaven.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

May 14, 2020

Dewaine Christmas, Owner
Sunshine Utilities
4224 NW 21st Ave
Ocala, FL 34475
sunshineutl@aol.com

Re: Oak Haven Quadruplexes
PW Facility ID #3424106
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on September 26, 2018. Based on the information provided during and following the inspection on January 8, 2019, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Miranda Rothenberger at 407-897-4301 or via e-mail at Miranda.rothenberger@floridadep.gov.

Sincerely,

Daniel K. Hall, Environmental Manager
Central District
Florida Department of Environmental Protection

Enclosure: September 26, 2018 Inspection Report

cc: Miranda Rothenberger, FDEP

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **Oak Haven Quadruplexes** County **Marion** PWS ID # **3424106**
Plant Location 4224 NW 21st Ave., Ocala, FL 34475 Phone 352-347-8228
Owner Name Dewaine Christmas Phone 352-347-8228
Owner Address 10230 SE Hwy 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 09/26/2018 Last Survey Date 08/19/2015 Last Compliance Inspection Date 08/29/2014

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5C

MAX-DAY DESIGN CAPACITY: 288,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 41
Population Served 103 Basis MORs

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* *Visit *Actual* *Visit
Days/wk: *Required* 5+1 *Actual* 5+1
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments *5 visits/week and one visit each weekend for a total of 0.6 hour/week

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 41,089 gpd
Maximum Day (from MORs) 173,900 gpd 11/2017
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 3" Master
Date Last Calibrated 2016

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐ Yes ☐ No ☐ Unknown
Audio-visual alarm? ☐ Yes ☐ No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☒ N/A
Emergency Response Plan	☒ Yes	☐ No	☒ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☒ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None Observed # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unkown
Comments

PWS ID # 3424106
Date 09/26/2018

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0269)		
Year Drilled		1982		
Depth Drilled		285’		
Drilling Method		Cable tool		
Type of Grout		Neat cement		
Static Water Level		18’		
Pumping Water Level		Unknown		
Design Well Yield		Unknown		
Test Yield		Unknown		
Actual Yield (if different than rated capacity)		Unknown		
Strainer		Unknown		
Length (outside casing)		147’		
Diameter (outside casing)		6”		
Material (outside casing)		Black steel		
Well Contamination History		None		
Is inundation of well possible?		No		
6’ X 6’ X 4” Concrete Pad		Yes		
SET BACKS	Septic Tank	>200’		
	Reuse Water	N/A		
	WW Plumbing	>100’		
	Other Sanitary Hazard	None observed		
PUMP	Type	Submersible		
	Manufacturer Name	Sta-Rite		
	Model Number	Unknown		
	Rated Capacity (gpm)	400		
	Motor Horsepower	30		
Well casing 12” above grade?		Yes		
Well Casing Sanitary Seal		OK		
Raw Water Sampling Tap		Yes		
Above Ground Check Valve		Yes		
Security		Yes		
Well Vent Protection		N/A		

COMMENTS _____

PWS ID # 3424106
Date 09/26/2018

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Uni-dose Capacity 12 gpd
Chlorine Feed Rate 100%
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.31 Remote 0.66
Remote tap location 4598 NW 22nd Ave.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	5,000	
Material	Steel	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	Yes	
PRV/ARV	ARV	
Pressure Gauge	Yes	
On/Off Pressure	45/65	
Access Secured	Yes	
Access Manhole	Yes	
Tank Sample Tap Location	Discharge piping	
Date of Inspection	06/19/2013*	
Date of Cleaning	06/19/2013*	

Comments *Tank inspections are out of date but are scheduled to be completed by the end of 2018.

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
Tank inspection was not performed by personnel under the responsible charge of a licensed engineer or there is no signed & sealed report documenting such a tank inspection	62.555.350(2)	Have the tank inspected by personnel under the responsible charge of a professional engineer licensed in Florida and/or submit a signed and sealed report.	Tank inspection received 01/08/2019, conducted 12/06/2019	No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2019, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2019.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the

Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

M E Rothenberger	Daniel K Hall
Inspector Signature	*Reviewer Signature*
Miranda Rothenberger	Daniel K. Hall
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
05/12/2020	May 13, 2020
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

0 100 200 400

Scale: 1"= 200'

Parcel No 13820

Parcel No 13824

S88°32'40"E 1195.84

"A" TO FIVE OAKS

Not subdivided

S 36°36'00 E 570.00 ±

US 441

ALT

4" PVC

1½" PVC

RICHARD ROAD

Existing 18 Asphalt Pavt

(66' WIDE)

Plat of HAVEN PB 0, Pg 99

East ¼ Cor Sec 36 Twp Rge 21E

Existing Asphalt

NW 42ND STREET

15 CMP

GARDNER AVE

(50' WIDE)

Existing 20 Road Under Construction

Not Subdivided

"CAUTION" UNDERGROUND UTILITIES

LIDAR ACRES

THIS DRAWING IS A COPY OF AN ORIGINAL DONE BY:
CARBAUGH & ASSOCIATES
ENGINEERS & SURVEYORS

H.W. BARRINEAU & ASSOCIATES, INC.
3100 SOUTHEAST 17th ST, SUITE 808 OCALA, FLORIDA 34471
PH. (352) 840-8580 FAX (352) 840-8774

OAK HAVEN

SUNSHINE UTILITIES INC.

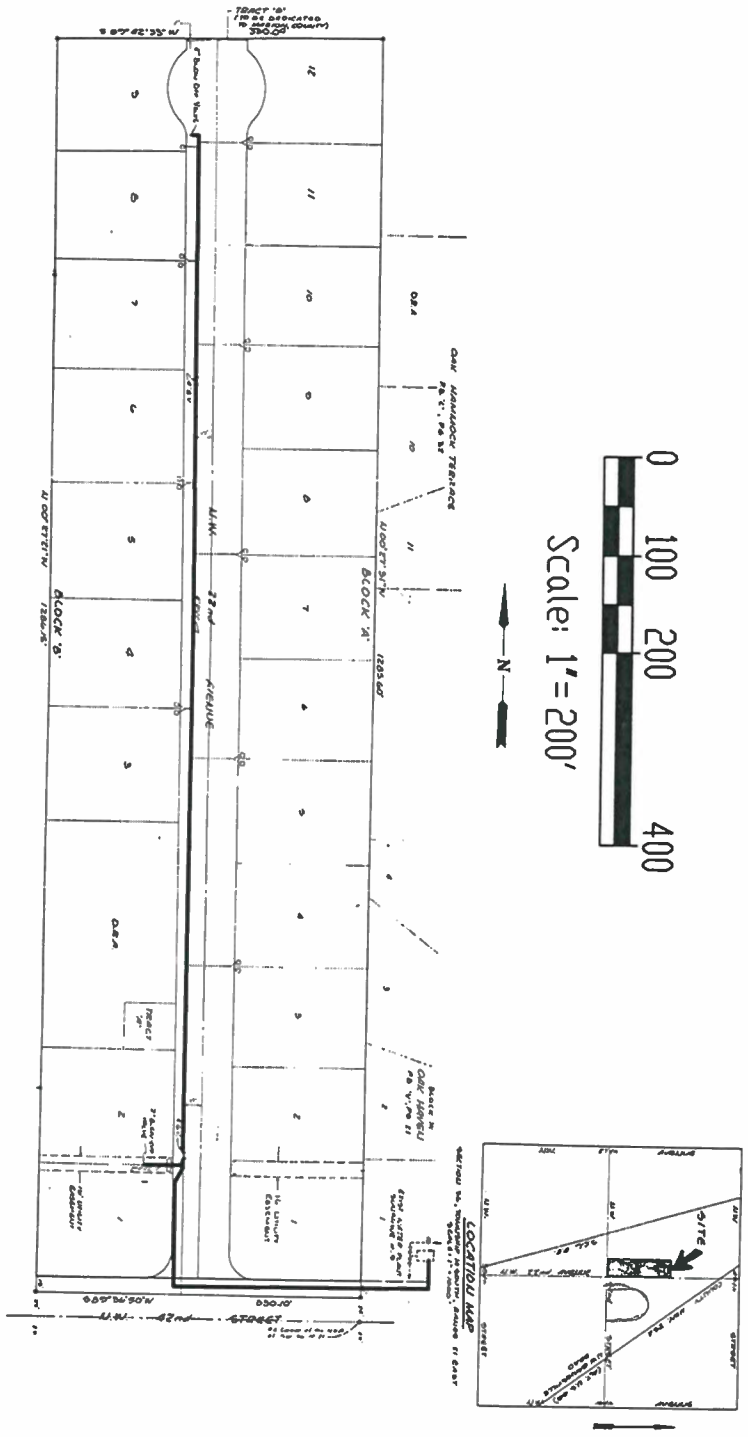
MARION COUNTY, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9636-02

1

Sheet 1 Of 1



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ORN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9636-02

Sheet 1 of 1

NORTHSIDE VILLAS

SUNSHINE INDUSTRIES INC.
OCALA, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST, SUITE 502
OCALA, FLORIDA 34471
FAX (352) 840-9538
(352) 840-9774

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Oakcrest Villas
Sun Resort

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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Figure 1-1: Oakcrest Villas Average Water Use 2019
Figure 2-1: Well 1

Figure 2-2: Chemical Treatment
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Figure 2-7: PIG 66-Gallon Tank Enclosure

APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Oakcrest Villas Sun Resort. A summary of the main parameters for the water system are summarized below in Table 1-1.

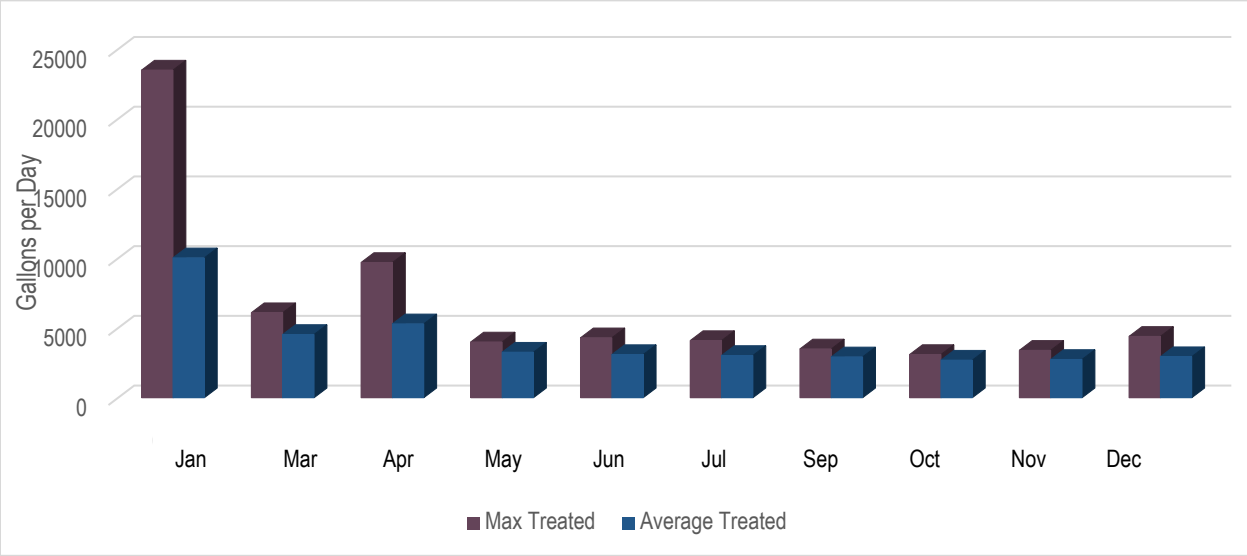
Table 1-1: Oakcrest Villas System Information

Water System Name	Oakcrest Villas/Sun Resort
PWD ID Number	3421201
Classification	Community
Plant Category & Class	5D
Street Address	CR 326 & 71st Place
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	80 (Sanitary Survey)
Number of Service Connections	32 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	4,059 GPD (2019 Monthly Reporting)
Maximum Day Water Use	23,500 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	21,600 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Oakcrest Villas community is depicted in Figure 1-1.

Figure 1-1: Oakcrest Villas Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 through a check valve and into a 300-gallon steel hydropneumatic vertical tank. The well turns on at 45 psi and off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 2-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side and flows through a 2-inch Master flow meter and then out to distribution.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	100 feet deep, 30 GPM	1974 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	300 gallons, Steel	Approx. 2003 (Tank Inspection Report)	Poor

2.1.1 Source

The Oakcrest Villas well, shown in Figure 2-1, is located next to the tank within a locked fenced in area and is located 30 feet from the road. The well is in the middle of a field between apartment complexes. The top of the well casing is about 6 inches above grade and within a concrete pad. The well is 100 feet deep with one submersible Sta-Rite 30 GPM pump and a 2 HP motor at 230 Volts. There is a bleeder vent that is used as the air vent, and a sample tap off the top. The well pump was recently replaced, and the conduit was open with exposed wire during the time of the inspection.

There are 3 potential contaminant sources within a 1000-foot radius of the well. All three contaminant sources are petroleum storage tanks for gas stations with a low concern level as listed by FDEP. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is 1:5 of 10.5% chlorine to water. The chlorine is stored in two 35-gallon drums, one for mixing and one for chemical storage, shown in Figure 2-2. The chlorine pump is a diaphragm 24 GPD Unidose, set at 50% stroke. The chemical metering pump at the facility is shown in Table 2-2. The average distribution residual in 2019 was 0.8 mg/L.

The chlorine pump will turn on when the pump is energized. The chemical pump outlet is wired to the well pump starter.

Table 2-2: Oakcrest Villas Chemical Metering Pumps

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Uni-Dose
Model	X015-XA-AAAFXXX
Size	24 GPD

Figure 2-2: Chemical Treatment

2.1.3 Storage

The Oakcrest Villas water treatment plant has a 300-gallon hydropneumatic storage tank onsite, shown in Figure 2-3. The tank is plumbed with 2-inch gate valve at the inlet and outlet of the tank with a 2-inch bypass line that is normally closed. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube connector, but the sight tube was removed at the time of inspection. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The storage tank had no exterior coating and was rusting in places along the side of the tank.

The most recent inspection on the storage tank was performed in December 2018 and the report stated that the exterior tank appeared to be in overall fair condition except for one pin hole. It appears this leak was patched as shown in Figure 2-4, and another leak has formed as shown in Figure 2-5. The interior of the tank was not inspected because the tank has no man way or opening. Please refer to Appendix B for the Tank Inspection Report.

Figure 2-3: Storage Tank

Figure 2-4: Patch on Storage Tank

Figure 2-5: Storage Tank Leak

2.1.4 Pump Station Building

The treatment plant has no building onsite, shown in Figure 2-6. The well, tank, and chemical treatment is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite.

Figure 2-6: Oakcrest Villa Treatment Site Layout

2.1.5 Back-Up Power

There is no emergency generator onsite or quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years, however the level for nitrates, which are sampled quarterly, was greater than half of the allowable limit all four quarters. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 23, 2018 and the report stated that no deficiencies were noted during the inspection. The plant has received no violations in the last 10 years, and no positive bacteria results were noted during 2019 monthly sampling. Please refer to Appendix E for the Sanitary Survey Report.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Components

From the site visit and visual of the electrical components, replacement may be necessary for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended that a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Source of Supply

The well pump was recently replaced, and the conduit was open with exposed wire during the time of the inspection and therefore the well casing is not watertight. This is required under Florida Administrative Code 64-E.8005(2)(g).

2.3.3 Water Treatment and Pumping

The system has a 2-inch Master meter after the tank which will have to be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 35-gallon tanks for chlorine treatment. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-7.

Figure 2-7: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank had a leak and will need a patch applied. A sight tube should be installed to be able to visually check the tank level. The tank inspection report noted the tank interior could not be inspected because there were no manways to inspect the interior.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1974 and supplies water to two blocks using a 2-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution system map does not show any flush points in the system. A flush point should be installed on the northwestern section of the distribution loop across from the 2-inch gate valve. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Oakcrest Villas to normal operating conditions are summarized with cost estimates in Table 4-1 through Table 4-3. The total cost estimate for Triage Repairs at Oakcrest Villas is: **$29,700**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$15,000
Mission Monitoring at Well	$10,000
Total	$26,000

Table 4-2: Source of Supply Triage Repairs

Recommendation	Estimate
Repair Exposed Well Pump Wires	$1,000
Total	$1,000

Table 4-3: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Patch Leak on Tank	$1,000
Total	$2,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Oakcrest Villas to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-5 through Table 4-7. The total cost estimate for Capital Improvements at Fore Oaks is: **$69,000**.

Table 4-5: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Replace Distribution Meter	$3,500
Total	$15,000

Table 4-6: Water Distribution System Capital Improvements

Recommendation	Estimate
Install Blowoff Valve	$2,000
Automatic Flushing Unit	$27,000
Total	$29,000

Table 4-7: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

OAKCREST VILLAS/SUN RESORT
CR 326 & 71ST PL
OCALA, FL 34471

Public Water System ID: 3421201

Previously Known As:
SUN RESORT
OAKCREST VILLAS
SUN RESORT AKA FOX-MOUNTAIN

County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: APARTMENT
Population Served: 80
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5696	SUN RESORT WELL 2" 100'/70'	AAE0275	ACTIVE	100	Floridan Aquifer

Results:

GROUND WATER:

Number of Unique Potential Contaminant Sources: 3

Facility Type	Facility Class	Status	Name	Affected Well	Susceptibility Score	Concern Level
PETROLEUM STORAGE TANK	RETAIL STATION	OPEN	MARATHON-OCALA #347	5696	8.33	LOW
PETROLEUM STORAGE TANK	RETAIL STATION	OPEN	QUICK KING #2	5696	8.33	LOW
PETROLEUM STORAGE TANK	RETAIL STATION	OPEN	DIAMOND OIL #109	5696	8.33	LOW

Last updated: February 19, 2020

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) / 850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

Oak Crest Villas Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Oak Crest Villas
Street Address:	NE 71st/NE 16th Court
City, State:	Marion County, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3421201
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 6, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com

ROBERT M. COUCH III ★ LICENSE ★ No. 55311 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.05 23:26:36 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 6, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and an external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 2.71 millimeters. UTM readings from the tank heads indicated an average thickness of 4.48 millimeters. The exterior coating of the tank appeared to be in overall good condition with the exception of a pin hole. There was no man way on the tank so the interior was not inspected.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 60 PSI or lower.

- The tank exterior should be pressure sprayed and repaired as needed close any pin holes and to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 52 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 5'-6"" (6'-6" including elliptical heads)
Diameter: 3'-0" outside diameter
Volume: 300 gallons with elliptical heads
Tank Age: Approximately 15 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as only one pin hole was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as there was no access to the interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 47 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 2.71 millimeters in the cylindrical section and 4.485 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/16" (4.46 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in overall fair structural condition with the exception of one pin hole. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank has no man way, therefore an interior inspection was not performed.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x2.71 mm / (454 mm+0.6 x 2.71 mm)
= 0.356 MPa
= 52 psi

When:

t < 0.5R = 0.5 x 454 = 227 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 2.71 mm
R = inside radius of shell course under consideration (mm) = 454 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Oak Crest Villas 300-gallon hydropneumatic pressure tank was performed on December 6, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was no man way to provide access to the interior.

Observations of the tank exterior indicated tank is subject to normal exposure. No observations of the tank interior were performed as there was no man way present.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 60 PSI or lower.
- The tank exterior should be pressure sprayed and repaired as needed close any pin holes and to remove any lichens during the next five years.
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 52 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/5/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior views of tank

View of pin hole noted
on side of tank

APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

OAKCREST/SUN RESORTS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	32
PWS:	3421201
County:	Marion

May 17, 2013

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, Hal McDonald 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells is most vulnerable to above ground activities because it is only 100 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	2958 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3421201**	
System name and address	**OAKCREST/SUN RESORTS**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**NE 70TH ST**	
Population served and service connections.	Population =	Connections =32
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	2958 GPD
Maximum Daily Demand (gpd)	6400GPD
System Capacity (gpd)	21600 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	NE 70TH ST			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	100 FT			
Well Yield (gpd)	43200 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	2 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Sun Resort Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3421201 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☑ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on 6/15/2020 (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☑ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☐ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, and c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☐ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☐ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ☑ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 7/14/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012- 0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Sun Resort

Florida Department of Environmental Protection Public Water System ID # 3421201

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Department of Environmental Protection performed a Source Water Assessment on our system to provide information about any potential sources of contamination in the vicinity of our wells. There are three potential sources of contamination identified with a low level of concern. The assessment results are available of the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

Sun Resort water system also serves the following communities and businesses; Fox Mountain, Suttons Subdivision and Oakcrest Villas. If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228,** during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR SUN RESORT

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	(pCi/L)	MAY'15	No	3.2	N/A	0	15	Erosion of natural deposits
Radium 226 + 228	(pCi/L)	MAY'16	No	3.2	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	OCT '18	No	0.3	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	OCT '18	No	0.0025	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	OCT '18	No	1.7	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate (as Nitrogen)	(ppm)	FEB - OCT '19	No	5.90	5.43 - 5.90	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	OCT '18	No	15	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.9	0.4 - 1.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	AUG '18	No	5.07	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.145	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are
- set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see from the table we had no violations of water quality. However, we did incur a violation for late monitoring and reporting of one of the Volatile Organic Contaminants, 1,2,4-trichlorobenzene. We completed 3 of 4 quarters for this contaminant and all results were satisfactory. Some people who drink water containing 1,2,4-trichlorobenzene in excess of the MCL over many years could experience changes in their adrenal glands. Additionally, the level for Nitrate was elevated above one-half of the allowable limit for samples collected in 2019. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider. We will continue to perform required monitoring quarterly for Nitrate and keep you informed of the results.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

APPENDIX E: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **OAKCREST VILLAS/SUN RESORT** County Marion PWS ID # **3421201**
Plant Location CR 326 & 71st Place, Ocala, FL 34471 Phone 352/347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352/347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352/347-8228
This Survey Date 1/23/18 Last Survey Date 8/9/15 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 21,600 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Apartments
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 32
Population Served 80 Basis 12/17 MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 2 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 4,513 gpd
Maximum Day (from MORs) 6,400 gpd 11/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Master
Date Last Calibrated 8/4/16

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☒ N/A
Emergency Response Plan	☒ Yes	☐ No	☒ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3421201
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1 (AAE0075)**			
Year Drilled		1974			
Depth Drilled		100’			
Drilling Method		Unknown			
Type of Grout		Unknown			
Static Water Level		Unknown			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		70’			
Diameter (outside casing)		4”			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	30			
	Motor Horsepower	2			
Well casing 12” above grade?		No*			
Well Casing Sanitary Seal		Yes			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		N/A			

COMMENTS *The Department will continue to accept the well casing height as it currently exists unless it is shown to contain chemical or microbial contamination.

PWS ID # 3421201
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-tech Capacity 15 gpd
Chlorine Feed Rate 50% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 0.53 Remote 0.83
Remote tap location 1642 71st Place
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	300
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	ARV
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	No
Tank Sample Tap Location	Discharge piping
Date of Inspection	N/A
Date of Cleaning	N/A

Comments

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

PWS ID # 3421201
Date 1/23/18

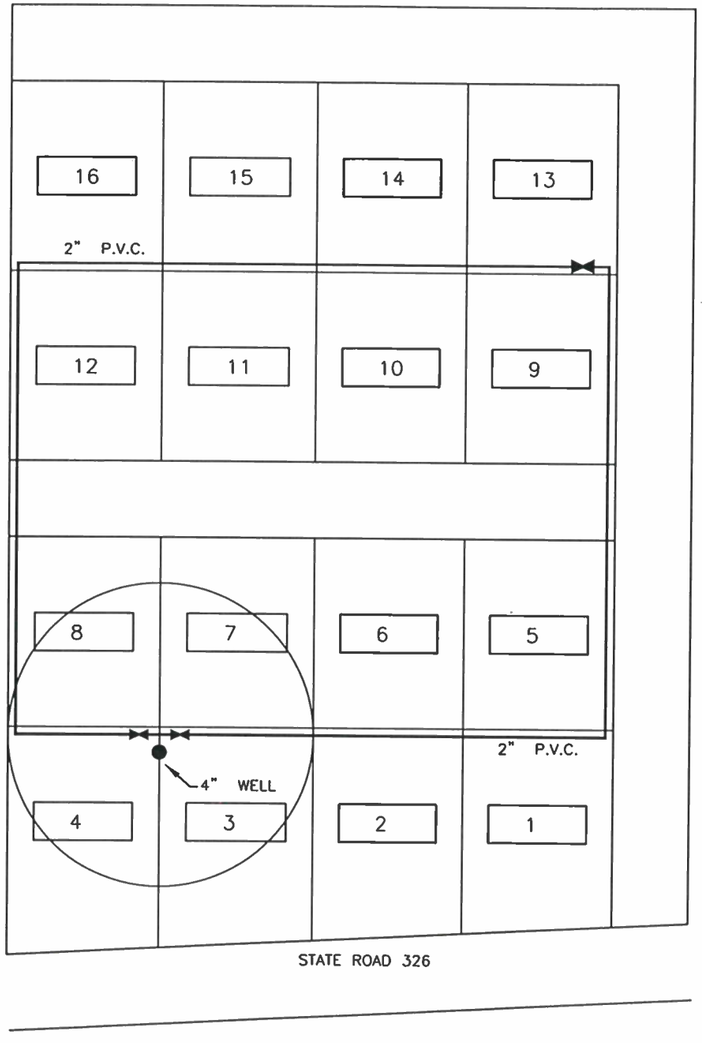
COMMENTS (continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18

APPENDIX F: DISTRIBUTION MAP

SUTTONS DUPLEX WATER DISTRIBUTION SYSTEM



LEGEND

2" P.V.C. EXISTING WATER MAIN &SIZE

WELL LOCATION

2" GATE VALVE

BLOW-OFF VALVE

N

0 100 200

Scale: 1"= 100'

NOTE: THIS PLAN REPRESENTS A COMPILATION OF ENGINEERING PLANS AND SPECIFICATIONS FROM THE FILES OF SUNSHINE UTILITIES, INC.

H. W. BARRINEAU & ASSOCIATES, INC.
3100 SOUTHEAST 17TH ST., SUITE 202 OCALA, FLORIDA 34471
FAX (352) 840-6688
(352) 840-6774

SUTTON'S DUPLEX

SUNSHINE INDUSTRIES INC.

OCALA, FLORIDA

DESCRIPTION	DATE	CHK	DRN
ORIGINAL ISSUE	11 APR 97	HWB	PMM

Project No. 9636-02

1

Sheet 1 Of 1

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Oakhurst
Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Emergency Response Plan
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Appendix E: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Oakhurst Subdivision. A summary of the main parameters for the water system are summarized below in Table 1-1.

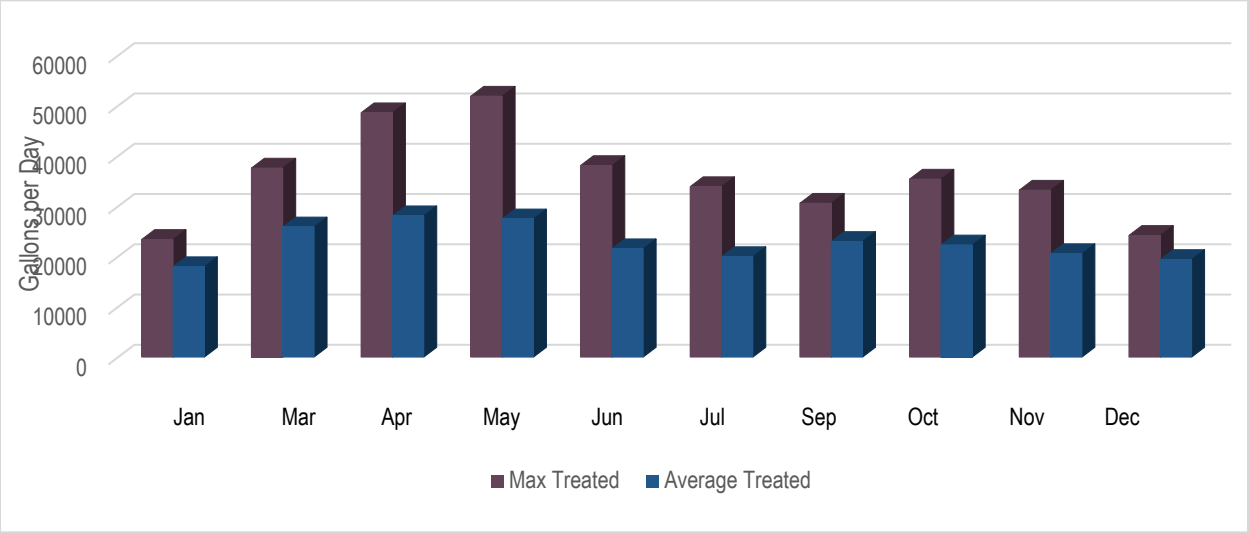
Table 1-1: Oakhurst Subdivision System Information

Water System Name	Oakhurst Subdivision
PWD ID Number	3424032
Classification	Community
Plant Category & Class	5C
Street Address	2040 SE 56th Terrace
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	346 (Sanitary Survey)
Number of Service Connections	99 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	22,629 GPD (2019 Monthly Reporting)
Maximum Day Water Use	51,900 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	288,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Oakhurst Subdivision community is depicted in Figure 1-1.

Figure 1-1: Oakhurst Subdivision Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 though a check valve and a 3-inch Master Meter into the 3,000-gallon steel hydropneumatic tank. The well turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and flows out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	138 feet deep, 200 GPM	1978 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	3,000 gallons, Steel	2019 (Tank Information Plate)	Good
Building	Wood	8.25 by 3.8 feet	Unknown	Poor

2.1.1 Source

The Oakhurst Subdivision well, shown in Figure 2-1, is located next to the tank within a locked fenced in area and is about 10 feet from SE 56th Ter. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 138 feet deep with one submersible Sta-Rite 200 GPM pump, 10 HP motor, and 230 Volts. The well has a flapper vent that is used as the air vent, and a sample tap off the top. The well pump wire is not sealed in a conduit. There is a 3-inch Master Meter after the well.

There is one known potential source of contamination within a 1000-foot radius of the well. The potential source is petroleum contamination from a petroleum storage tank at a gasoline service station. FDEP lists the contaminant source as a moderate concern level. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydro pneumatic tank. The chlorine mix is 1:3 of 10.5% chlorine to water and is housed in two 35-gallon drums, one drum is used for mixing the chlorine and the other drum is used for chemical storage, and they located in the pump station building, as shown in Figure 2-2. The chemical pump is a peristaltic 24 GPD Uni-Dose Pump, set at 25% stroke. Refer to Table 2-2 for the chemical pump information. The average distribution residual in 2019 was 1.2 mg/L.

The chlorine pump will turn on when the pump is energized. The chemical pump outlet is wired to the well pump starter.

Table 2-2: Oakhurst Chemical Metering Pumps

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Uni-Dose
Model	UD001-238NU
Size	24 GPD

Figure 2-2: Chlorine Treatment

2.1.3 Storage

The Oakhurst water treatment plant has a 3,000-gallon hydropneumatic storage tank on-site, shown in Figure 2-3. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor, and air is injected

into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The storage tank onsite was installed in 2019 to replace an older storage tank. The tank is not required to have its 5-year inspection until 2024.

Figure 2-3: Storage Tank

2.1.4 Pump Station Building

The pump station structure is an 8.25 by 3.8-foot wood enclosure primarily used for storage of the chlorine mixing, injection tank, and facility logbook, shown in Figure 2-4. There is an open wall and provides no containment for spills or protection from rodents and insects. The roof is sagging and does not appear to be able to provide adequate protection for the chemical storage in the event of a hurricane. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

Figure 2-4: Pump Station Building

2.1.5 Back-Up Power

There is no emergency generator onsite or quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix B for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix C for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on December 18, 2020 and stated that no deficiencies were noted during the inspection. In addition, no compliance issues or violations were observed in the Florida Department of Environmental Protection information portal in the last ten years. Please refer to Appendix D for the Sanitary Survey Report.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The wooden shed onsite has been subject to degradation from chlorine off gassing and general weathering over time and the roof is sagging and does not appear to be able to provide adequate protection for the chemical storage in the event of a hurricane. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made. Remote monitoring of the following parameters is recommended:

- Flow (Instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Components

From the site visit and visual of the electrical components (example shown in Figure 2-5), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended that a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-5: Electrical Components

2.3.2 Source of Supply

The well pump wire was exposed and without a conduit during the time of the inspection and therefore the well casing is not watertight. This is required under Florida Administrative Code 64-E.8005(2)(g).

The system has a 2-inch master meter after the well. The meter should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 35-gallon tanks for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical drums to have more compact 30-gallon drums and storing the chemicals in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-6.

Figure 2-6: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1978 and supplies water to ten blocks using 2-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed and one blow-off valve. The system provides the community with potable water only (no fire flow water). Refer to Appendix E for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes, and each home has its own aboveground meter located behind each lot. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Oakhurst to normal operating conditions are summarized with cost estimates in Tables 4-1 and 4-2. The total cost estimate for Triage Repairs at Oakhurst is: **$27,700**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$15,000
Mission Monitoring at Well	$10,000
Total	$26,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Total	$1,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Oakhurst to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-6. The total cost estimate for Capital Improvements at Oakhurst is: **$67,000**.

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$3,500
Total	$3,500

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$11,500

Table 4-5: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

OAKHURST SUBDIVISION
20TH STREET AND SE 56TH COURT
OCALA, FL 34471

Public Water System ID: 3424032
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 346
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5797	6"/138'/105'	AAE0256	ACTIVE	138	Floridan Aquifer

Results:

GROUND WATER:

Number of Unique Potential Contaminant Sources: 1

Facility Type	Facility Class	Status	Name	Affected Well	Susceptibility Score	Concern Level
PETROLEUM STORAGE TANK	PETROLEUM CONTAMINATION	OPEN	CIRCLE K #2722328	5797	33.33	MODERATE

Last updated: February 19, 2020

Accessibility Information

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) / 850-245-2128 (fax)

APPENDIX B: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

OAKHURST

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	109
PWS:	3424032
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
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For more information or additional copies of this document contact:

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Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List

Organization or Department	Name & Position	Telephone	Cell Phone	e-mail
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling Jeremy	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 138 ft deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	21,141 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	45 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424032**	
System name and address	**Oakhurst**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**SE 20TH ST**	
Population served and service connections.	Population =	Connections =109
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	21141 GPD
Maximum Daily Demand (gpd)	49200 GPD
System Capacity (gpd)	288000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	SE 20TH ST			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	105 FT			
Well Yield (gpd)	288000 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	7.5 HP			
Phase	3			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX C: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Oak Hurst Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424032 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, _____, and ending December 31, _____,*** to its customers on _____ (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ A copy of our CCR is attached, and

☐ If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Oak Hurst

Florida Department of Environmental Protection Public Water System ID # 3424032

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our well. There is one potential source of contamination identified for our water system with a Moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR OAK HURST

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228	(pCi/L)	JUL'15	No	1.5	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	NOV '18	No	0.5	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	NOV '18	No	0.0044	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	(ppb)	JUL '18	No	5.2	N/A	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	(ppm)	NOV '18	No	0.12	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	2.41	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	NOV '18	No	0.9	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	NOV '18	No	11	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.2	0.6 - 2.4	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Total trihalomethane (TTHM)	(ppb)	AUG '18	No	1.39	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.285	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019OakHurst.pdf

APPENDIX D: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **OAKHURST SUBDIVISION** County Marion PWS ID # **3424032**
Plant Location 20TH Street & SE 56th Court, Ocala, FL 34471 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida Inc Phone 352-347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 1/23/18 Last Survey Date 1/23/15 Last Compliance Inspection Date 8/29/14

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5C

MAX-DAY DESIGN CAPACITY: 288,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connection 99
Population Served 346 Basis: 11/17 MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 5+1 *Actual* 5+1
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 38,029 gpd
Maximum Day (from MORs) 60,400 gpd 5/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 3" Master
Date Last Calibrated 8/18/16

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☐ Yes	☐ No	☒ N/A
Emergency Response Plan	☒ Yes	☐ No	☒ N/A

Comments Stage 2 D/DBP Monitoring plan submitted 8/28/14. Lead and Copper Plan approved 01/28/08.

PREVENTIVE MAINTENANCE/O&M
Operation & Maintenance Manual ☒ Yes ☐ No
Preventive Maintenance Program ☒ Yes ☐ No

Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None reported # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 02/15/10
Comments

PWS ID # 3424032
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1(AAE0256)**	
Year Drilled		1978	
Depth Drilled		138’	
Drilling Method		Cable tool	
Type of Grout		Neat cement	
Static Water Level		18’	
Pumping Water Level		Unknown	
Design Well Yield		Unknown	
Test Yield		Unknown	
Actual Yield (if different than rated capacity)		Unknown	
Strainer		Unknown	
Length (outside casing)		105’	
Diameter (outside casing)		6”	
Material (outside casing)		Black steel	
Well Contamination History		None	
Is inundation of well possible?		No	
6’ X 6’ X 4” Concrete Pad		Yes	
SET BACKS	Septic Tank	>200’	
	Reuse Water	N/A	
	WW Plumbing	>100’	
	Other Sanitary Hazard	None observed	
PUMP	Type	Submersible	
	Manufacturer Name	Sta-Rite	
	Model Number	Unknown	
	Rated Capacity (gpm)	200	
	Motor Horsepower	10	
Well casing 12” above grade?		Yes	
Well Casing Sanitary Seal		Yes	
Raw Water Sampling Tap		Yes	
Above Ground Check Valve		Yes	
Security		Yes	
Well Vent Protection		N/A	

COMMENTS _____

PWS ID # 3424032
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Uni-Dose Capacity 12 gpd
Chlorine Feed Rate 50% of stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.70 Remote 1.35
Remote tap location 5760 SE 22nd Pl.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to the hydropneumatic tank.
Booster Pump Info N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	3,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	Both
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	On tank
Date of Inspection	2013/06
Date of Cleaning	2013/06

Comments Next tank inspection due 6/18

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

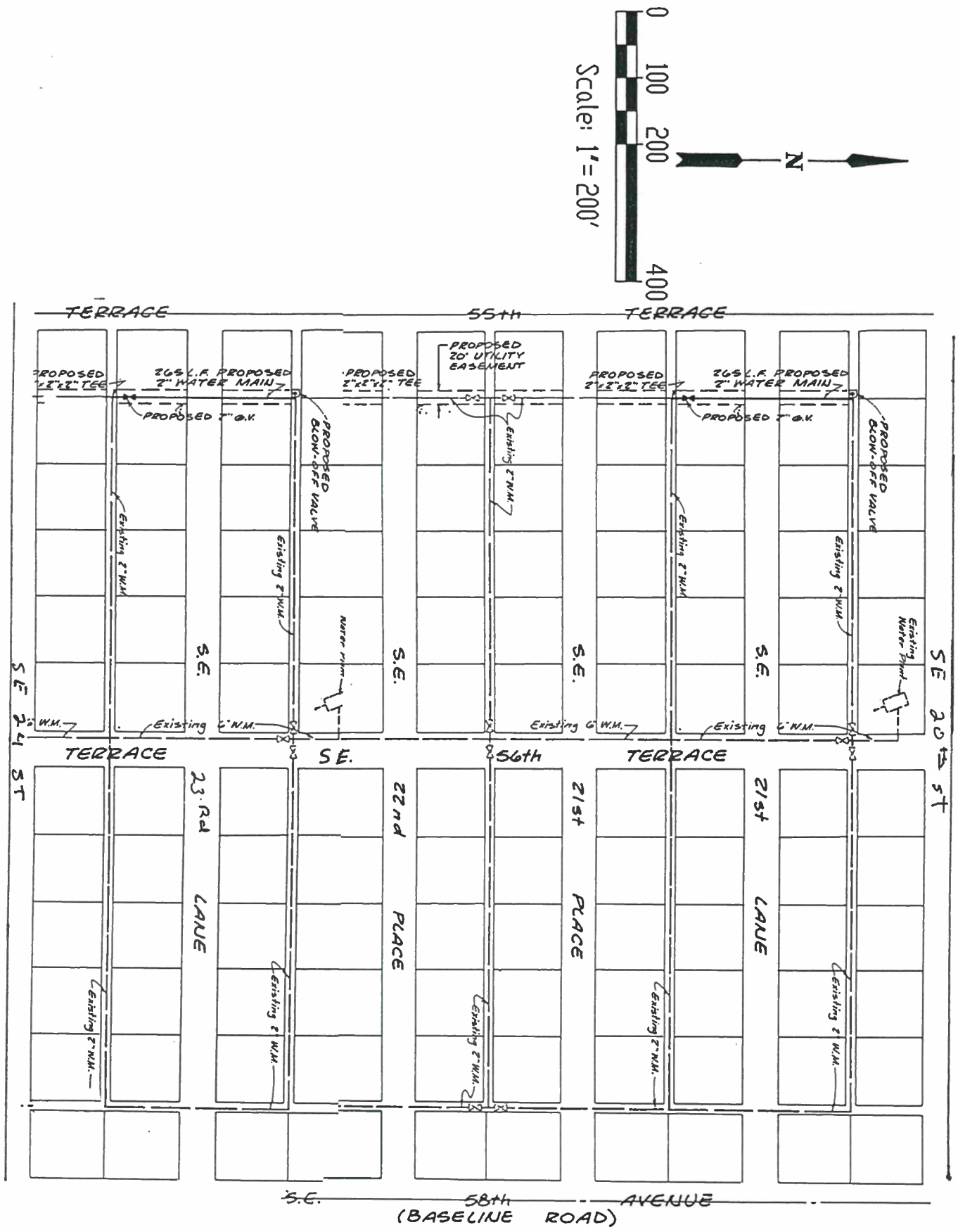
PWS ID # 3424032
Date 1/23/18

COMMENTS (continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

	Christine Daniel
Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18

APPENDIX E: DISTRIBUTION MAP



DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9636-02

1

OAKHURST

SUNSHINE INDUSTRIES INC.
OCALA, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST, SUITE 502
OCALA, FLORIDA 34471
FAX (352) 840-9538
(352) 840-9774

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Ocala Gardens Apartments

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Ocala Gardens. A summary of the main parameters for the water system are summarized below in Table 1-1.

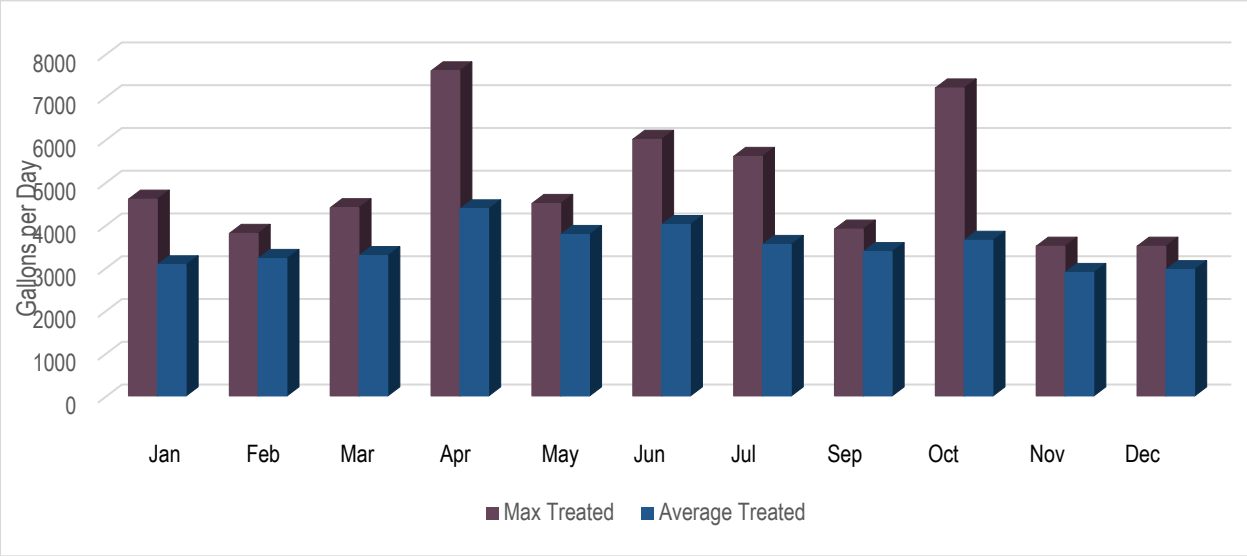
Table 1-1: Ocala Garden System Information

Water System Name	Ocala Gardens Apartments
PWD ID Number	3421554
Classification	Community
Plant Category & Class	5D
Street Address	581 SW 23rd Street
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	48 (Sanitary Survey)
Number of Service Connections	24 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	3,464 GPD (2019 Monthly Reporting)
Maximum Day Water Use	7,600 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	39,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Ocala Gardens community is depicted in Figure 1-1.

Figure 1-1: Ocala Garden Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 through a check valve and into a 900-gallon steel hydropneumatic vertical tank. The well turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 2-inch bypass line for the tank that is normally closed. Water exits the tank and flows through a 2-inch Master flow meter and then out to distribution.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	240 feet deep, 50 GPM	1991 (Sanitary Survey)	Fair
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	900 gallons, Steel	Unknown	Fair

2.1.1 Source

The Ocala Garden well is located next to the tank within a small, locked fenced in area and is located 10 feet from SW 23rd Street and 40 feet from a railroad. The top of the well casing is 3 feet above grade and within a concrete pad. Sunshine Utility representative stated that the well was modified within the last 5 years to be 3 feet above ground level because the surrounding area had severe flooding during hurricanes. They stated that hurricanes can leave up to a foot of flooding and typically takes over a month to drain. The well is 240 feet deep with a submersible 50 GPM pump and a 2 HP motor at 230 Volts. There is a tap with a check valve that is used as the air vent, and a sample tap off the top. Well 1 is shown in Figure 2-1.

There are no potential contaminant sources within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is unknown. The chlorine is stored in a 35-gallon day tank. The chlorine pump is a diaphragm 12 GPD Unidose, set at 50% stroke. The average distribution residual in 2019 was 0.9 mg/L. The chemical metering pump at the facility is shown in Table 2-2.

The chlorine pump will turn on when the pump is energized. The chemical pump outlet is wired to the well pump starter.

Table 2-2: Ocala Gardens Chemical Metering Pumps

Chemical Pump	Chlorine
Number of Pumps	1
Brand	Uni-Dose
Model	U021-2811TT
Size	0.50 GPH

Figure 2-2: Chemical Treatment

2.1.3 Storage

The Ocala Gardens water treatment plant has a 900-gallon hydropneumatic storage tank onsite, shown in Figure 2-3. The tank is plumbed with 2-inch ball valve at the inlet and outlet of the tank with a 2-inch bypass line that is normally closed. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and a pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the tank exterior appeared to be in good structural condition. The tank has no manway or opening to view the interior

of the tank, therefore no interior inspection was performed. Please refer to Appendix B for the 2018 Tank Inspection Report.

Figure 2-3: Storage Tank

2.1.4 Pump Station Building

The treatment plant has no building onsite. The well, tank, and chemical treatment is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite. The area is susceptible to flooding especially during hurricanes.

2.1.5 Back-Up Power

There is no emergency generator onsite or quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on February 6, 2020 and the report stated that no deficiencies were noted during the inspection. Please refer to Appendix E for the Sanitary Survey Report. The plant has received two violations in the last 10 years, both related to late reporting for disinfection byproducts. The violations were issued on October 26, 2018 and were resolved on November 26, 2018. Additionally, no positive bacteria results were noted during 2019 monthly sampling.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended that a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Water Treatment and Pumping

The system has a 2-inch meter after the tank which will have to be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there is a 35-gallon tank for chlorine treatment. The container should be stored on a secondary containment pallet that can contain the total volume of the chemical. The container is also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical storage tank to have more a more compact 30-gallon tank and storing the chemicals in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-4.

Figure 2-4: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1991 and supplies water to two blocks using a 2-inch PVC water main in a loop configuration. The loop does not appear to have valves for isolating part of the loop or any blowoff valves. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that there are no backflow prevention devices or fire hydrants in the distribution system. The Ocala Gardens plant services mostly quadplex apartments, with each tenant having its own water meter. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution system map does not show any flush points in the system and the map is difficult to read to see if there are any dead-end plugs or valves in the system. A blowoff valve should be installed at one of the corners of the distribution loop. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Ocala Gardens to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Capital Improvements at Ocala Gardens is: **$27,700**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$15,000
Mission Monitoring at Well	$10,000
Total	$26,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Total	$1,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Ocala Gardens to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 and Table 4-5. The total cost estimate for Capital Improvements at Ocala Gardens is: **$79,500**.

Table 4-3: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Replace Distribution Meter	$3,500
Total	$15,000

Table 4-4: Water Distribution System Capital Improvements

Recommendation	Estimate
Install Blowoff Valve	$2,000
Automatic Flushing Unit	$27,000
Total	$29,000

Table 4-5: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

OCALA GARDEN APARTMENTS
SW 7TH AVE
OCALA, FL 34470

Public Water System ID: 3421554
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: APARTMENT
Population Served: 48
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5771	BURKES LEMON AVE/4 INCH WELL	AAC0021	ACTIVE	90	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

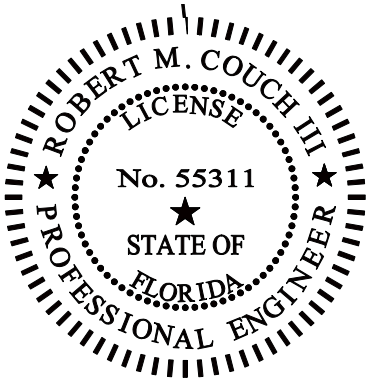
Burks-Ocala Gardens Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Burks-Ocala Gardens Subdivision
Street Address:	SW 5th Court/SW 23rd Place
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3421554
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 11, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.01 23:13:45 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 11, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair to good structural condition. Ultrasonic Thickness Measurements (UTMs) indicated that the average thickness of the tank shell at the time of the field inspection was approximately 2.84 mm. UTM readings from the tank heads indicated an average thickness of 4.47 mm. The exterior galvanized coating of the tank appeared to be in overall fair condition. There was no man way on the tank so the interior was not inspected.

Based on the condition of the tank noted during the field visit, Enviro-Tech, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function at a maximum working pressure of 46 PSI as needed until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 12'-3" (12'-9" including elliptical heads)
Diameter: 3'-6" outside diameter
Volume: 900 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

Dry film thickness readings were not taken as there was no access panel to the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 37 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 2.84 millimeters in the cylindrical section and 4.47 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/16" (4.76 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank has no man way therefore an interior inspection was not performed.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 2.84mm / (531 mm+0.6 x 2.84 mm)
= 0.320 MPa
= 46 psi

When:

t < 0.5R = 0.5 x 531 = 265.5 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 2.84 mm
R = inside radius of shell course under consideration (mm) = 531 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Burks-Ocala Gardens subdivision 900-gallon hydropneumatic pressure tank was performed on December 11, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was no man way present.

Observations of the tank exterior indicated tank is subject to normal exposure. No observations of tank interior were performed as there was no man way present.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function at a maximum working pressure of 46 PSI as needed until the next 5 year inspection cycle, provided the recommended actions are taken..

Signed: Robert M. Couch III Date: 1/1/2019

Robert M. Couch III, P.E. Registration No. 55311

Typical exterior views of tank

APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

Berks/Ocala Gardens

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	25
PWS:	3421554
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

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2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 90 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	3516 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3421554**	
System name and address	**Berks/Ocala Garden**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**581 SW 23rd St**	
Population served and service connections.	Population =	Connections = 25
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	3515 GPD
Maximum Daily Demand (gpd)	3900 GPD
System Capacity (gpd)	39000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	581 SW 23rd St			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	90 FT			
Well Yield (gpd)	18720 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	230 GPM			
Motor Manufacturer	Franklin			
Horsepower	2 HP			
Phase	1			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Burks Ocala Gardens Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3421554 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule?	■ Yes	☐ No
(B) Is your system regulated by the Public Service Commission (PSC)?	☐ Yes	☐ No
If Yes, was a copy of your CCR sent to the PSC, as required by rule?	■ Yes	☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1,*** 2019 ***, and ending December 31,*** 2019, to its customers on 4/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 4/24/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Burks Quadraplexes - Ocala Garden Apartments

Florida Department of Environmental Protection Public Water System ID # 3421554

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well(s). The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR BURKS OCALA GARDENS

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	(pCi/L)	AUG '15	No	3.7	N/A	0	15	Erosion of natural deposits
Radium 226 + 228	(pCi/L)			3.7	N/A	0	5	

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	NOV '18	No	0.4	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	NOV '18	No	0.0057	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	(ppb)	NOV '18	No	6.4	N/A	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	(ppm)	NOV '18	No	0.17	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	1.37	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	NOV '18	No	12	N/A	N/A	160	Salt water intrusion; leaching from soil

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.9	0.6 - 1.4	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.32	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations for water quality. We are very proud to report that our water meets all federal and state requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019BurksOcalaGarden.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

February 17, 2020

Dewayne Christmas, Office Manager
Ocala Garden Apartments
SW 7th Avenue,
Ocala, FL 34470
sunshineutl@aol.com

Re: Ocala Garden Apartments
PW Facility ID #3421554
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on February 6, 2020. Based on the information provided during and following the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Sally Butterfield at 407-897-4307 or via e-mail at Ellia.Ruggiero@Floridadep.gov

Sincerely,

David Smicherko, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

cc: Ellia Ruggiero, Ellia.Ruggiero@Floridadep.gov
David Smicherko, David.Smicherko@floridadep.gov

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **Ocala Garden Apartments** County Marion PWS ID # **3421554**
Plant Location SW 7th Avenue, Ocala, FL 34470 Phone 352-347-8228
Owner Name Sunshine utilities of Central FL, Inc. Phone 352-347-8228
Owner Address 10230 East Highway 25, Belleview, FL 34420-5531
Contact Person Dewayne Christmas Title Owner/Office Manager Phone 352-347-8228
This Survey Date 2/6/2020 Last Survey Date 7/20/2017 Last Compliance Inspection Date N/A

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 39,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Apartment/Mobile home park
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 24
Population Served 48 Basis Operator

OPERATION & MAINTENANCE LOG: Yes
Location Plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7419

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 2 *Actual* 2
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 3,504gpd
Maximum Day (from MORs) 7,600 gpd 04/2019
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Master
Date Last Calibrated 5/30/2019

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☐ Yes	☐ No	☒ N/A
Distribution System Map	☐ Yes	☐ No	☒ N/A
Emergency Response Plan	☐ Yes	☐ No	☒ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3421554
Date 2/6/2020

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1			
Year Drilled		1991			
Depth Drilled		240’			
Drilling Method		Combination			
Type of Grout		Neat Cement			
Static Water Level		38’			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		63’			
Diameter (outside casing)		4”			
Material (outside casing)		Black Steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>100’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None Observed			
PUMP	Type	Submersible			
	Manufacturer Name	Grundfos			
	Model Number	Unknown			
	Rated Capacity (gpm)	50			
	Motor Horsepower	5			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		Ok			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		Yes			

COMMENTS _____

PWS ID # 3421554
Date 2/6/2020

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 30 gpd
Chlorine Feed Rate 50 % stroke rate
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.4 Remote 0.77
Remote tap location Outside Spigot
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to the hydropneumatics tank
Booster Pump Info N/A
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms:			
Loss of Cl_2 capability	☐	☐	
Loss of Cl_2 residual	☐	☐	
Cl_2 leak detection	☐	☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	1,000	
Material	Steel	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	Yes	
PRV/ARV	PRV	
Pressure Gauge	Yes	
On/Off Pressure	30/50	
Access Secured	Yes	
Access Manhole	No	
Tank Sample Tap Location	On tank	
Date of Inspection	N/A	
Date of Cleaning	N/A	

Comments

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

None Noted

COMMENTS:

- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

PWS ID # 3421554
Date 2/6/2020

Inspector Signature

Ellia Ruggiero
Printed Name

Environmental Specialist II
Title

2/06/2020
Date

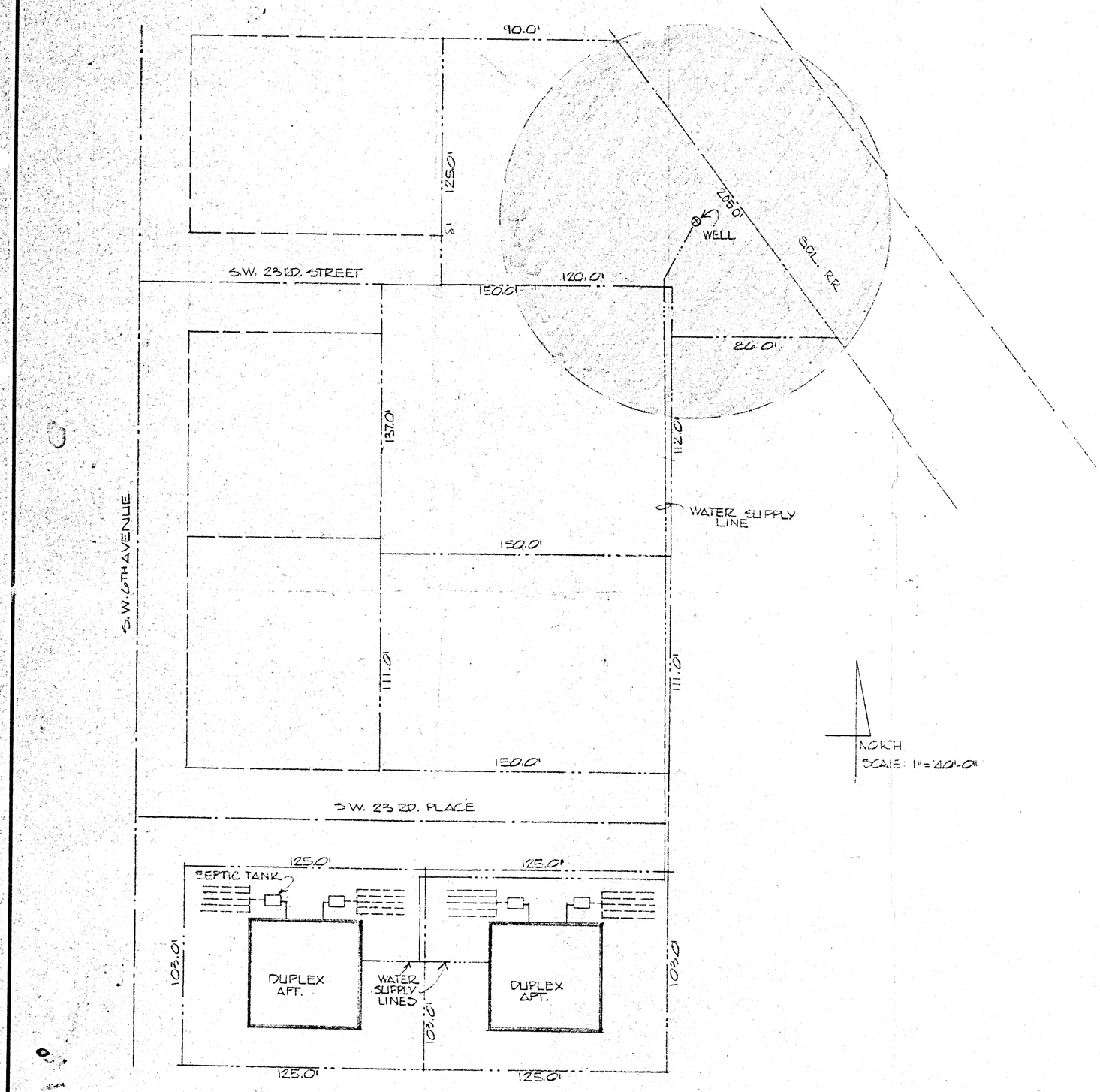
Reviewer Signature

David Smicherko
Printed Name

Environmental Manager
Title

2/17/2020
Date

APPENDIX F: DISTRIBUTION MAP



NORTH
SCALE: 1"=40'-0"

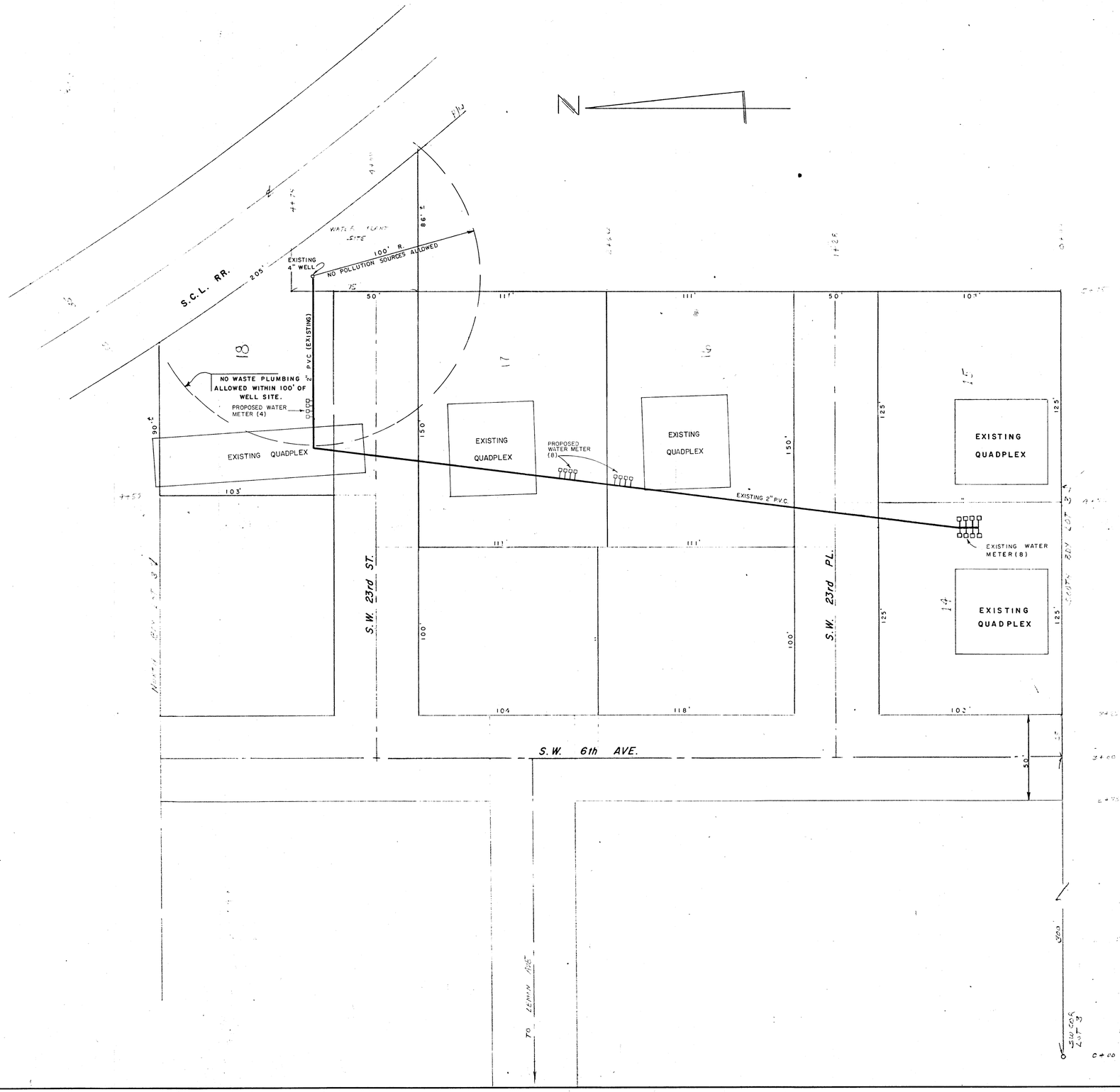
SITE PLAN

PLANS BY...

MEDIA DESIGN OF FLORIDA
116 S. MAGNOLIA AVE.
SUITE 12
OCALA, FLA. 32670
904 732-2921

A PROPOSED APARTMENT COMPLEX FOR...
C.R. THOMPSON
OCALA, FLA.

SCALE:	APPROVED BY:	DRAWN BY
DATE:		REVISED
		DRAWING NUMBER 77080



	5-79	WATER METERS
REV	3-79	AS BUILT BUILDINGS

WATER DISTRIBUTION SYSTEM

THOMPSON QUADPLEXES

MARION COUNTY, FLORIDA

MOORHEAD ENGINEERING COMPANY
CONSULTING ENGINEERS · LAND SURVEYORS · LAND PLANNERS
home office
P.O. BOX 998 305 SE. 1st AVE. OCALA, FLORIDA
branch offices
HOMOSASSA - CRYSTAL RIVER and LEESBURG, FLORIDA

Drawn by: J S P	Date: MAY, 1978	Job No. 77-178	
Approved by: J R G	Scale: 1" = 30'	F.B.	Pg.

SHEET NO. 1 OF 2 SHEETS

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RECEIVED
Solid Waste Section
MAY 23 1979
Bureau of Environmental Protection

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Ocala Heights Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Ocala Heights. A summary of the main parameters for the water system are summarized below in Table 1-1.

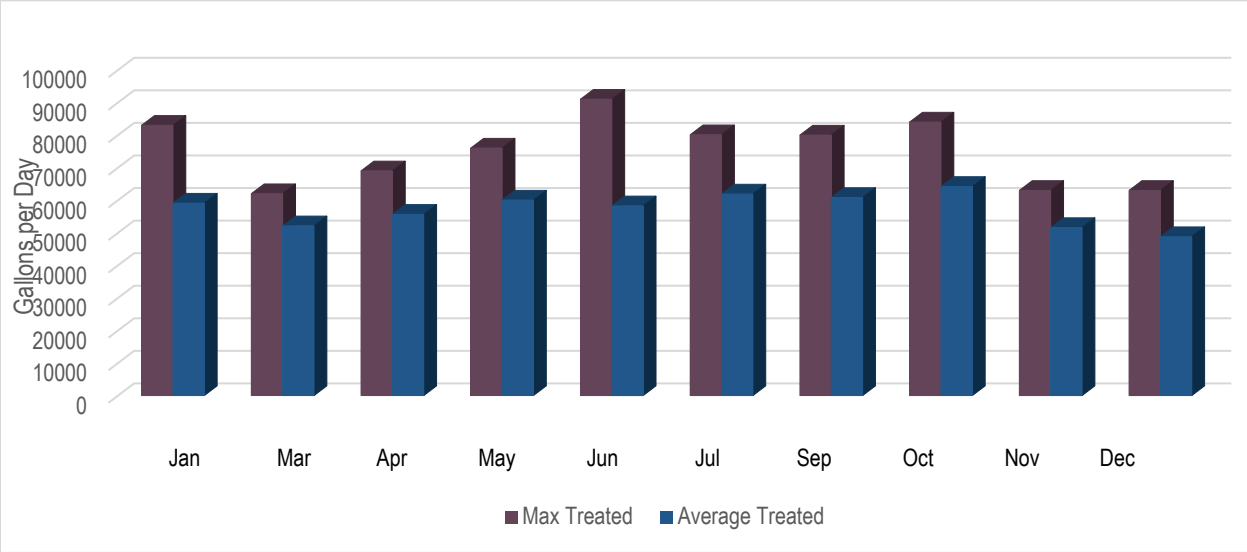
Table 1-1: Ocala Heights System Information

Water System Name	Ocala Heights S/D
PWD ID Number	3424651
Classification	Community
Plant Category & Class	5C
Street Address	190 NE 68th Ct
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	825 (Sanitary Survey)
Number of Service Connections	331 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	57,256 GPD (2019 Monthly Reporting)
Maximum Day Water Use	91,000 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	676,800 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Ocala Heights community is depicted in Figure 1-1.

Figure 1-1: Ocala Heights Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two water wells onsite, Well 1 and Well 2. Water is pumped from both wells through check valves and joins before flowing through a 4-inch Neptune flow meter then into the 10,000-gallon steel hydropneumatic tank. The well turns on when pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 4-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and goes through a 6-inch Master flow meter and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	150 feet deep, 120 GPM	1984 (Sanitary Survey)	Fair
Source	Well 2	140 feet deep, 470 GPM	1988 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	10,000 gallons, Steel	Unknown	Fair
Generator	Kohler Generator	38 kW, 47.5 KVA	Unknown	Fair
Building	CMU	9.8 by 5.3 feet	Unknown	Fair

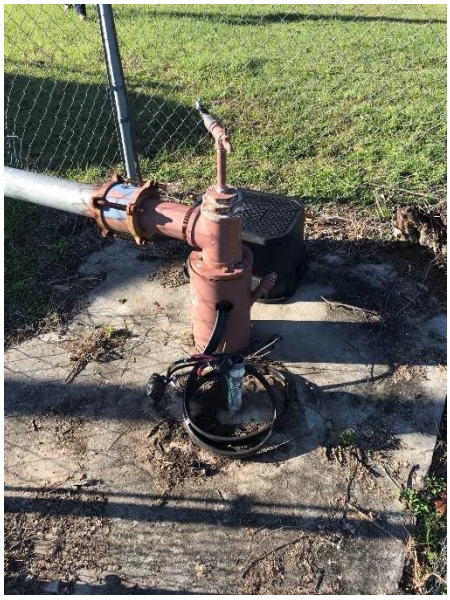
2.1.1 Source

The Ocala Heights Well 1 is the lead well and located with a locked fenced in area near the storage tank. The top of the well casing is 8 inches above grade and within a concrete pad. The well is 150-feet deep with a submersible Sta-Rite 120 GPM pump, 10 HP motor. Well 1 has a two sample taps, the sample tap on top is used as an air vent with a check valve and the second sample tap is used for sampling. Well 1 is shown in Figure 2-1.

Figure 2-1: Well 1

The Ocala Heights Well 2 is located within a locked fenced-in area and is about 20 feet from the tank. The top of the well casing is 16 inches above grade and within a concrete pad. The well is 140-feet deep with a submersible Sta-rite 470 GPM pump, 30 HP motor. The well pump appeared to be recently replaced, but the Sunshine Utilities representative could not remember the installation date. The conduit was not sealed and was exposed to the atmosphere. Well 2 has two sample taps, one tap is used as an air vent with a check valve and the second sample tap is used for sampling. There is a capped pipe off the side for the purpose of introducing shock chlorination to the well if needed. Well 2 is shown in Figure 2-2.

Figure 2-2: Well 2



The wells have a combined 4-inch Neptune meter located prior to the hydropneumatic tank. The meter is shown in Figure 2-3.

Figure 2-3: Well 1 and 2 Combined Flow Meter

There are two unique potential contaminant sources within a 1000-foot radius of the well. Both sources are related to a domestic wastewater treatment facility, the Ocala East Villas Wastewater Treatment Facility, which are listed as a low level of concern by FDEP. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is 1:4 of 10.5% Chlorine to water and the mix is stored in a 55-gallon drum. There is a second 55-gallon drum to store the chlorine. There are two chemical pumps, one for each well, however the chemical pump for well #2 did not have tubing or injection point. The well #1 chemical pump is a diaphragm 30 GPD Chem-Tech Pump, set at 100% stroke, and the well #2 chemical pump is a 30 GPD Uni-dose diaphragm pump. The chemical metering pumps at Ocala Heights are shown in Table 2-2. The average distribution residual in 2019 was 1.3 mg/L.

The chlorine pump will turn on when the pump is energized. Each chemical pump outlet is wired to the well pump starter.

Table 2-2: Ocala Heights Chemical Metering Pumps

Chemical Pump	Chlorine Pump #1	Chlorine Pump #2
Number of Pumps	1	1
Brand	Chem-Tech	Uni-Dose
Model	Illegible	Illegible
Size	30 GPD	30 GPD

Figure 2-4: Chlorine Treatment

2.1.3 Storage

The Ocala Heights water treatment plant has a 10,000-gallon hydropneumatic storage tank on-site, shown in Figure 2-5. The tank is plumbed with 4-inch isolation butterfly valves at the inlet and outlet of the tank with a 4-inch bypass line that is normally closed, and a tank drain located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, but the pressure gauge

was illegible. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in April 2019 and stated that the tank exterior appeared to be in fair structural condition. The interior coating was in fair condition but there were areas where the coating had begun to fail and surface corrosion was noted in various areas throughout the tank interior. Please refer to Appendix B for the 2018 Tank Inspection Report.

2.1.4 Pump Station Building

The pump station building is a 9.8 by 5.3-foot CMU building with a wooden roof primarily used for storage of the chlorine mixing tank, facility logbook, and control panels. The building has no door but has an opening with a width of 3.9 feet. The building had no evidence of roof leaks or rodents, but the open door provides no containment for spills or protection from weather, rodents, and insects, and some of the sidewalls were showing signs of degradation. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite. The building is shown in Figure 2-5.

Figure 2-5: Pump Station Building and Storage Tank

2.1.5 Back-Up Power

The Ocala Heights plant has a 38 kW Kohler Generator unit onsite to power the well pumps if there is an interruption in power supply, shown in Figure 2-6. The generator is exercised one hour per week, and the site is equipped with an automatic transfer switch. The generator runs on propane and is supplied by a 120-gallon propane tank. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-6: Back-up Power Generator

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 23, 2018 and stated that no deficiencies were noted during the inspection. According to the Florida Department of Environmental Protection's database, the Fore Oaks plant received two violations for disinfection by-product monitoring and reporting in November of 2020.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the sites, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-7), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended that a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-7: Rusted Well Starter Box

The generator on site is old and will likely be due for replacement. Standby power is required at this site per Florida Administrative Code 62-555.320 (14) (a).

2.3.2 Source of Supply

Well 2 is in poor condition, with portions of the well exposed to atmosphere. This puts the well at risk of microbial contamination. Figure 2-8 shows exposed pump wire that should be in a conduit to properly seal the well. The Florida Administrative Code 64E-8.005 requires the well to be watertight.

Figure 2-8: Exposed Conduit on Well 2

Both wells have a sample tap on the vent. These should be removed to prevent the taps from accidently being closed, and a screen should be installed on the vent.

The wells have a combined 4-inch Neptune meter. The meter should be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

2.3.3 Water Treatment and Pumping

The chemical pump for Well #2 had no tubing. Tubing should be installed, and an injection point should be added.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 55-gallon tanks for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals outside in an enclosed container such as the PIG PAK601 Roll Top Hardcover Spill Pallet with a 66-gallon containment capacity. An example is shown in Figure 2-9.

Figure 2-9: PIG 66-Gallon Tank Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted the tank interior to be in fair condition, with some areas of corrosion noted. The tank age is unknown but likely over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1984 and supplies water using a 2 to 8-inch PVC water main in a loop configuration with two blowoff valves. The loop has gate valves to isolate sections if needed located at most roadway intersections. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Ocala Heights to normal operating conditions are summarized with cost estimates in Table 4-1 through Table 4-3. The total cost estimate for Triage Repairs at Ocala Heights is: **$65,200**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$50,000
Mission Monitoring at Well	$10,000
Total	$61,000

Table 4-2: Source of Supply Triage Repairs

Recommendation	Estimate
Repair Exposed Well Pump Wire	$1,500
Total	$1,500

Table 4-3: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Add Chemical Tubing and Injection Point for Well 2	$1,000
Total	$2,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Ocala Heights to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Table 4-4 through Table 4-7.The total cost estimate for Capital Improvements at Ocala Heights is: **$110,500**

Table 4-4: General Plant Capital Improvements

Recommendation	Estimate
Generator Replacement	$35,000
Building and Site Repairs	$25,000
Total	$60,000

Table 4-5: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$4,000
Total	$4,000

Table 4-6: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Interior Tank Coating	$8,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$19,500

Table 4-7: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

OCALA HEIGHTS S/D
CR314(7TH ST)& NE 68TH CT
OCALA, FL 34420

Public Water System ID: 3424651
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: MOBILE HOME PARK
Population Served: 825
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5982	WELL#1 6"90'/150' 120GPM	N/A	ACTIVE	150	Floridan Aquifer
5983	WELL#2 8" 125'/140' 470GPM	AAE0277	ACTIVE	140	Floridan Aquifer

Results:

GROUND WATER:

Number of Unique Potential Contaminant Sources: 2

Facility Type	Facility Class	Status	Name	Affected Well	Susceptibility Score	Concern Level
DOMESTIC WASTEWATER	WASTEWATER SITE	A	Ocala East Villas WWTF	5983	0.03	LOW
DOMESTIC WASTEWATER	WASTEWATER FACILITY	A	Ocala East Villas WWTF	5982	0.03	LOW
DOMESTIC WASTEWATER	WASTEWATER SITE	A	Ocala East Villas WWTF	5982	0.03	LOW

DOMESTIC WASTEWATER	WASTEWATER FACILITY	A	Ocala East Villas WWTF	5983	0.03	LOW

Last updated: February 19, 2020

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APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

Ocala Heights Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Ocala Heights
Street Address:	NE 68th Street & NE 2nd Loop
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424651
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	April 2, 2019

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com

ROBERT M. COUCH III ★ LICENSE ★ No. 55311 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.04.04 00:51:11 -04'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on April 2, 2019 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.61 millimeters. UTM readings from the tank heads indicated an average thickness of 6.52 millimeters. The exterior coating of the tank appeared to be in overall fair condition with minor surface corrosion. The interior coating of the tank appeared to be in fair condition with minor surface corrosion throughout the tank walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected at the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 50 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 27'-8" (31'-8" including elliptical heads)
Diameter: 7'-6" outside diameter
Volume: 10,000 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along portions of the tank ridge and walls..

6.3 Ultrasonic Metal Thickness Testing

A total of 49 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.61 millimeters in the cylindrical section and 6.52 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/8" (9.53 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition.

7.2 Tank Interior

The tank interior appeared to be in fair condition. there were areas throughout the tank interior where the coating had begun to fail and corrosion had formed on the interior tank surface.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.61 mm / (1136 mm+0.6 x 6.61 mm)
= 0.348 MPa
= 50 psi

When:

t < 0.5R = 0.5 x 1136 = 568.20 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.61 mm
R = inside radius of shell course under consideration (mm) = 1,136 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Ocala Heights 10,000-gallon hydropneumatic pressure tank was performed on April 2, 2019. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already failed.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion throughout the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected at the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 50 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 4/4/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank

APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities
OCALA HEIGHTS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	365
PWS:	3424651
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
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For more information or additional copies of this document contact:

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2970 Wellington Circle ~ Suite 101 ~ Tallahassee
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	David Hannah	850-668-2746	352-267-5108	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	(352)245-0600		
Gas / Propane Supplier	Belleview Gas	(352)245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	Allen Curry Plumbing	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, Austin 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" & (1) 8" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 180 & 179 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	65070 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	25 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424651**	
System name and address	**Ocala Heights**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**NE 67TH AVE**	
Population served and service connections.	Population =	Connections =365
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	65070 GPD
Maximum Daily Demand (gpd)	82000 GPD
System Capacity (gpd)	676800 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	NE 68TH AVE	NE 68TH AVE		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	90 FT	125 FT		
Well Yield (gpd)	288000 GPD	777600 GPD		
Pump Type	Submersible	SUB		
Manufacturer	Sta-Rite	STA RITE		
Capacity (gpm)	230 GPM	540 GPM		
Motor Manufacturer	Franklin	FRANKLIN		
Horsepower	15 HP	30 HP		
Phase	3	3		
Volts/Amps	230 volts	230 VOLTS		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Ocala Heights Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424651 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☑ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on 6/15/20 (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☑ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☐ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☐ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☐ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: _____
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ■ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ■ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1,*** 2019 ***, and ending December 31,*** 2019 to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012- 0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Ocala Heights

Florida Department of Environmental Protection Public Water System ID # 3424651

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are two potential sources of contamination identified for our water system with a Low susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

Ocala Heights water system also serves the following communities; **Country Aire, Reynolds, Silverwood Villas and Spanish Palms.** If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR OCALA HEIGHTS

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAY '18	No	0.5	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAY '18	No	0.0047	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	MAY '18	No	1.1	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	MAY '18	No	0.19	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	1.74	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	MAY '18	No	0.9	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	MAY '18	No	10	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.2	0.6 - 1.6	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5)	(ppb)	NOV - DEC '19	No	0.91	ND - 0.91	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	NOV - DEC '19	No	3.38	0.74 - 3.38	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.055	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	JUL '18	No	1.6	1	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations for water quality. However, we did incur a violation for late monitoring and reporting of disinfection byproducts. The potential disinfection byproducts that may result from chlorinating water are Haloacetic acids and Trihalomethanes. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. The testing was done in 2019 but later than the specified time frame, all results were satisfactory and are included in the Test Results Table on preceding page.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

APPENDIX E: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **OCALA HEIGHTS S/D** County Marion PWS ID # **3424651**
Plant Location CR 314(7th Street) and NE 68th Ct., Ocala, FL 34420 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida Inc Phone 352-347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 1/23/18 Last Survey Date 1/23/15 Last Compliance Inspection Date 10/17/01

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5C

MAX-DAY DESIGN CAPACITY: 676,800 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Mobile home park
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connection 331
Population Served 825 Basis: 12/17 MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 5+1 *Actual* 5+1
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments:

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 69,699 gpd
Maximum Day (from MORs) 109,000 gpd 4/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 6" Master (Finished)
Date Last Calibrated 7/14/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Kohler Generator
Capacity of Standby (kW) 38
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 1 hr/wk.
What equipment does it operate?
☒ Well Pumps Both
☐ High Service Pumps
☒ Treatment Equipment All
Satisfy avg. daily demand? ☐Yes ☐No ☒Unknown
Audio-visual alarm? ☒Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments Stage 2 D/DBP monitoring plan submitted 8/20/14. Lead and copper plan approved 12/13/12

PREVENTIVE MAINTENANCE/O&M
Operation & Maintenance Manual ☒ Yes ☐ No
Preventive Maintenance Program ☒ Yes ☐ No

Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None reported # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 11/14/12
Comments

PWS ID # 3424651
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1**	**2(AAE0277)**
Year Drilled		1984	1988
Depth Drilled		150’	140’
Drilling Method		Combination	Cable tool
Type of Grout		Neat Cement	Neat Cement
Static Water Level		38’	Unknown
Pumping Water Level		Unknown	Unknown
Design Well Yield		Unknown	Unknown
Test Yield		Unknown	Unknown
Actual Yield (if different than rated capacity)		Unknown	Unknown
Strainer		Unknown	Unknown
Length (outside casing)		90’	125
Diameter (outside casing)		6”	8”
Material (outside casing)		Black steel	Black steel
Well Contamination History		None	None
Is inundation of well possible?		No	No
6’ X 6’ X 4” Concrete Pad		Yes	Yes
SET BACKS	Septic Tank	>200’	>200’
	Reuse Water	N/A	N/A
	WW Plumbing	>100’	>100’
	Other Sanitary Hazard	None observed	None observed
PUMP	Type	Submersible	Submersible
	Manufacturer Name	Sta-Rite	Sta-Rite
	Model Number	Unknown	Unknown
	Rated Capacity (gpm)	120	470
	Motor Horsepower	10	30
Well casing 12” above grade?		Yes	Yes
Well Casing Sanitary Seal		Yes	Yes
Raw Water Sampling Tap		Yes	Yes
Above Ground Check Valve		Yes	Yes
Security		Yes	Yes
Well Vent Protection		N/A	N/A

COMMENTS _____

PWS ID # 3424651
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech/Uni-Dose Capacity 30 gpd
Chlorine Feed Rate 60% and 70% of stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.91 Remote 0.28
Remote tap location 6871 William Way
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to the hydropneumatic tank.
Booster Pump Info
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	10,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	40-60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	On tank
Date of Inspection	2013/08
Date of Cleaning	2013/08

Comments Tank inspection due 8/18

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

PWS ID # 3424651
Date 1/23/18

COMMENTS (continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18

APPENDIX F: DISTRIBUTION MAP

NORTH BOUNDARY OF SECTION 18
CENTERLINE BEARING: S 89°37'52"E
SHARPE'S FERRY ROAD
NE 7th STREET
SECTION LINE BEARING: S 88°39'12"E
NE 6th PLACE
NE 5th PLACE
NE 5th STREET
NE 4th LANE
NE 3rd PLACE
NE 67th AVENUE
NE 68th COURT
ALLEY
BLOCK
BLOCK 8
BLOCK 6
WEST BOUNDARY OF NE ¼ OF NE ¼ OF SECTION 18
EAST BOUNDARY OF SECTION 18
SOUTH BOUNDARY OF NE ¼ OF NE ¼ OF SECTION 18
1277.82' TO RIGHT-OF-WAY LINE
1329.06' TO SECTION LINE
N 00°08'31"W
N 00°00'15"W
N 88°41'15"W
N 88°41'45"W
N 88°43'11"W
N 88°45'04"W
N 88°44'57"W
N 88°46'02"W
N 88°48'53"W
603.19'
603.20'
602.09'
603.29'
603.30'
603.34'
603.35'
603.82'
603.36'
603.33'
603.38'
0
100
200
400
Scale: 1"= 200'

THIS DRAWING IS A COPY OF AN ORIGINAL OBTAINED FROM SUNSHINE UTILITIES, INC.

H. W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST., SUITE 602
OCALA, FLORIDA 34471
PHONE (352) 840-0555
FAX (352) 840-0774

OCALA HEIGHTS

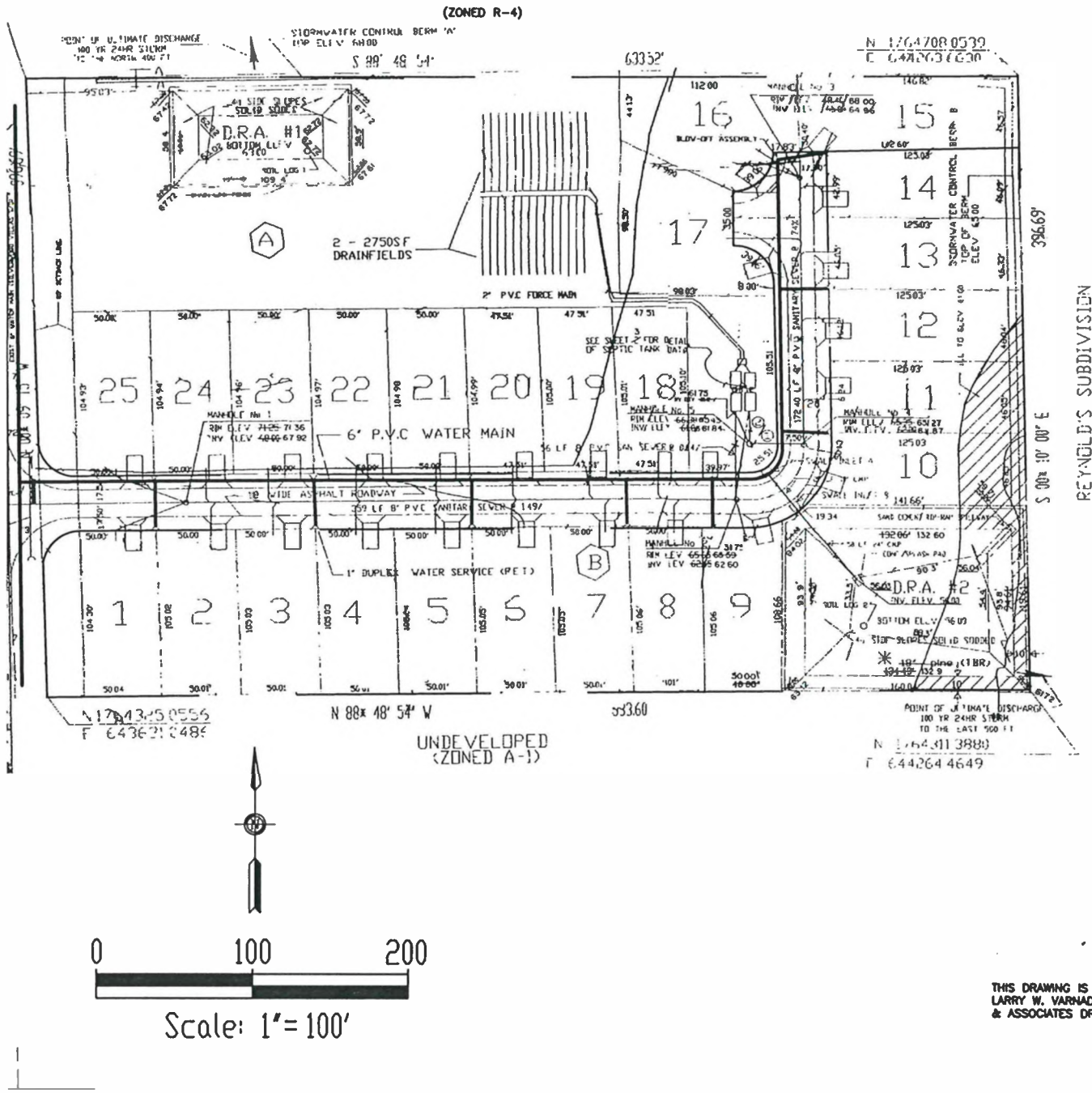
SUNSHINE UTILITIES INC.
OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9636-02

1

Sheet 1 Of 1



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Project No. 9636-02

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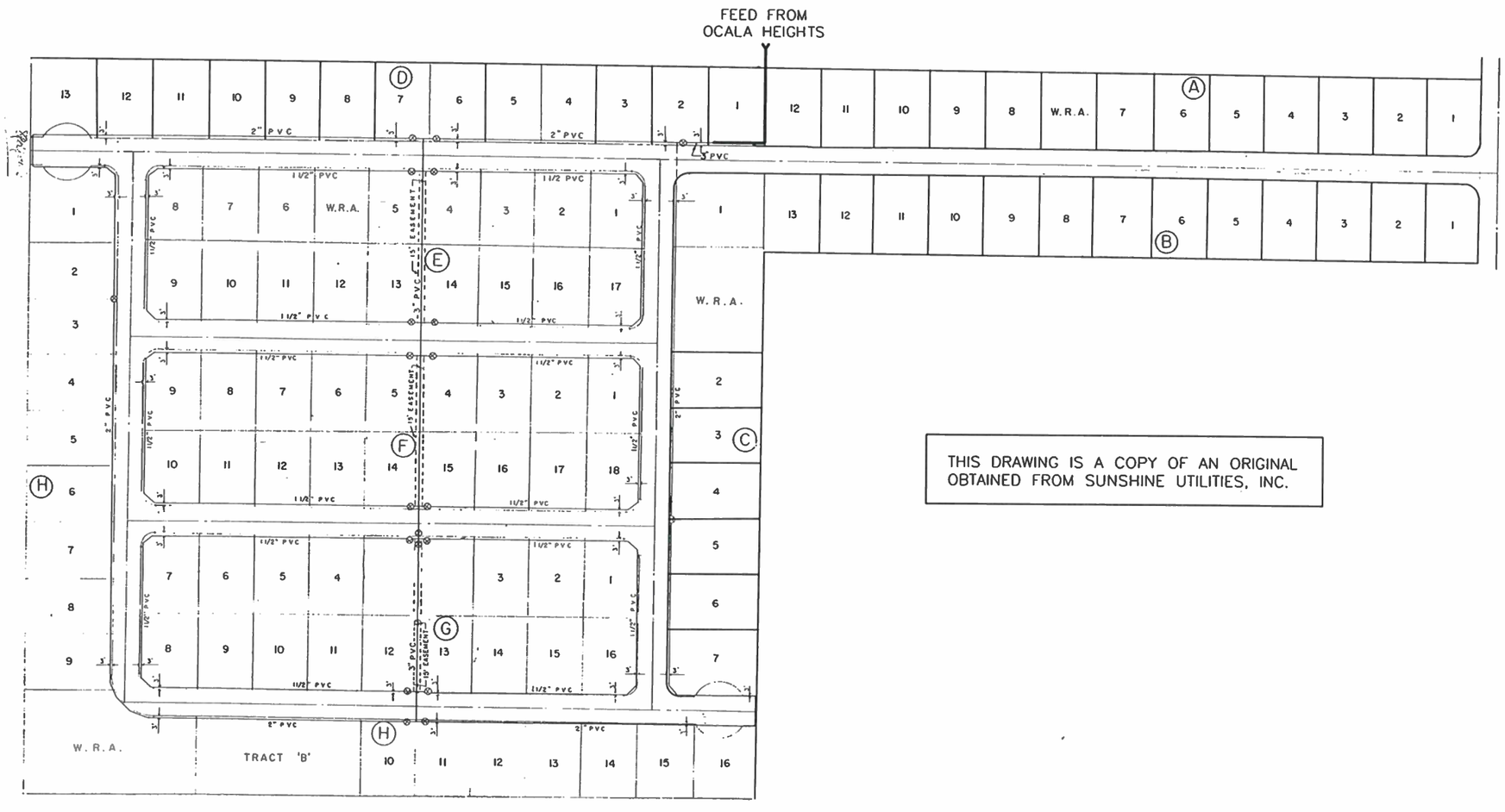

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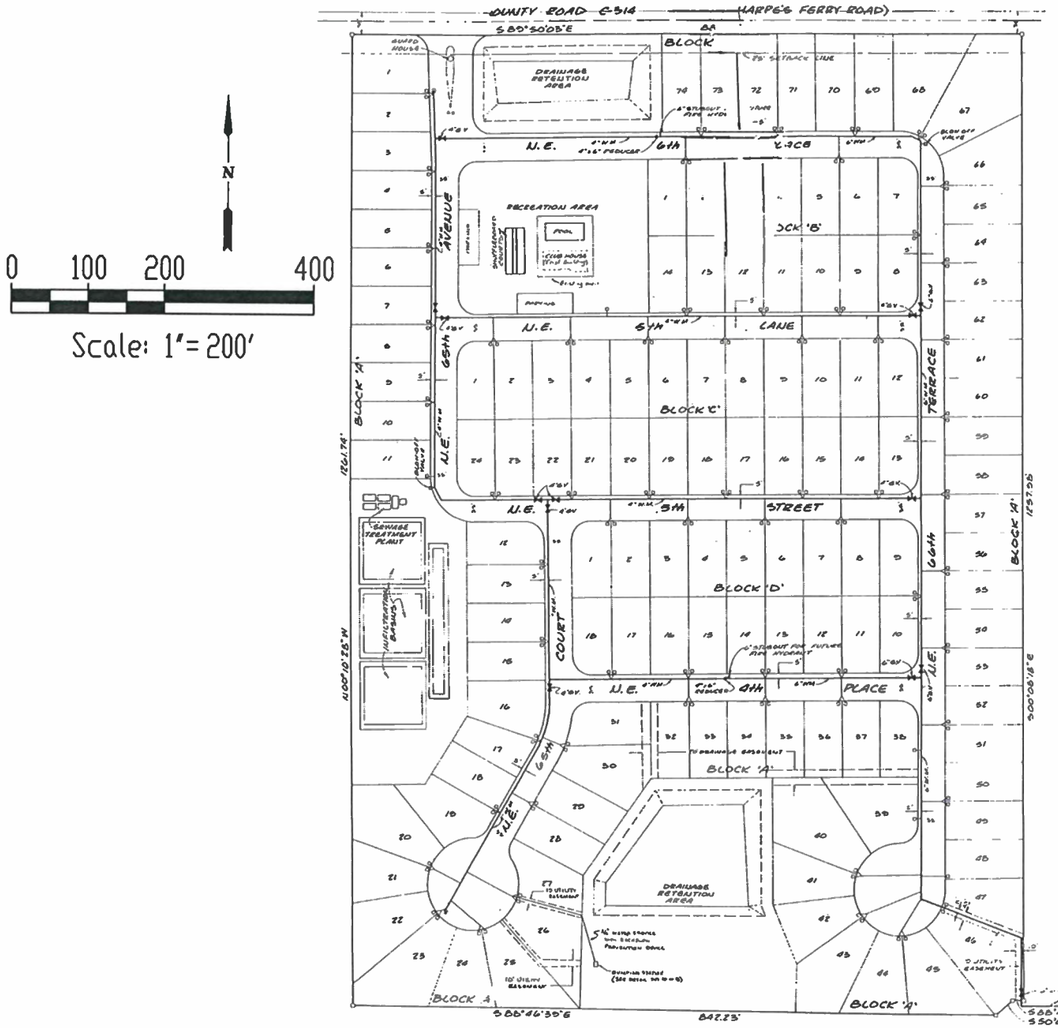

LEGEND

- WATER MAIN
- GATE VALVE
- BLOW-OFF VALVE
- SINGLE SERVICE
- DOUBLE SERVICE
- REDUCER

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SPANISH PALMS

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COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Ocklawaha Water Works

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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1. INTRODUCTION

1.1 General System Information

A summary of the main parameters for the Ocklawaha Water Works System are summarized in Table 1-1, below.

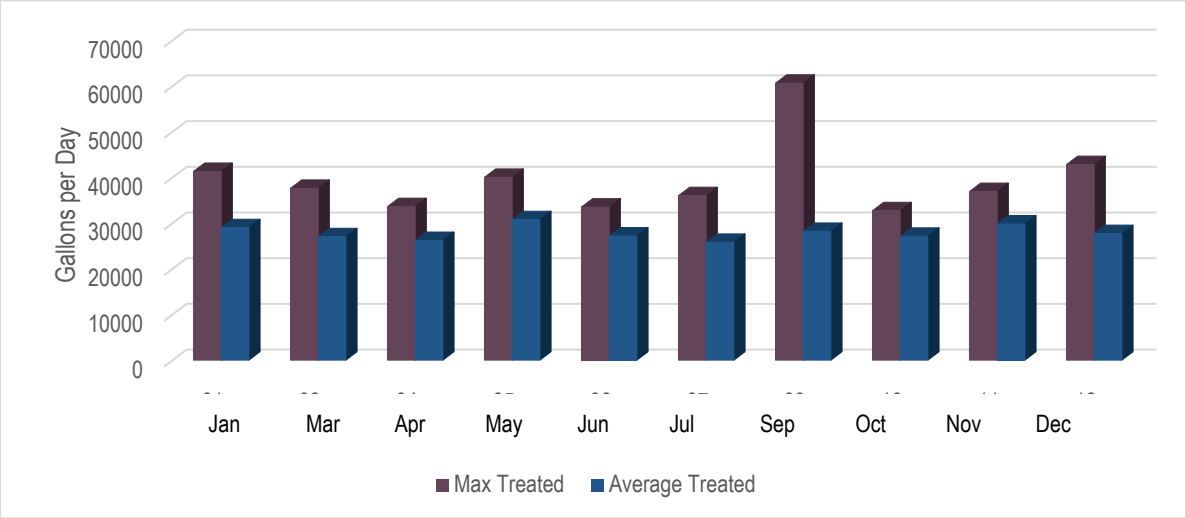
Table 1-1: Ocklawaha Water Works System Information

Water System Name	Ocklawaha Water Works (Ocklawaha Terrace & Ocklawaha Pines)
PWD ID Number	3420939-1 (Ocklawaha Terrace) 3420939-2 (Ocklawaha Pines)
Classification	Community
Plant Category & Class	5D
Street Address	12780 E Hwy 25 (Terrace) 14455 E Hwy 25 (Pines)
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	1,130 (Sanitary Survey)
Number of Service Connections	329 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	27,867 GPD (Terrace) 64,279 GPD (Pines) (2019 Monthly Reporting)
Maximum Day Water Use	60,600 GPD (Terrace) 114,300 GPD (Pines) (2019 Monthly Reporting)
Max-Day Design Capacity	216,000 GPD (Terrace) 91,449 GPD (Pines) (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

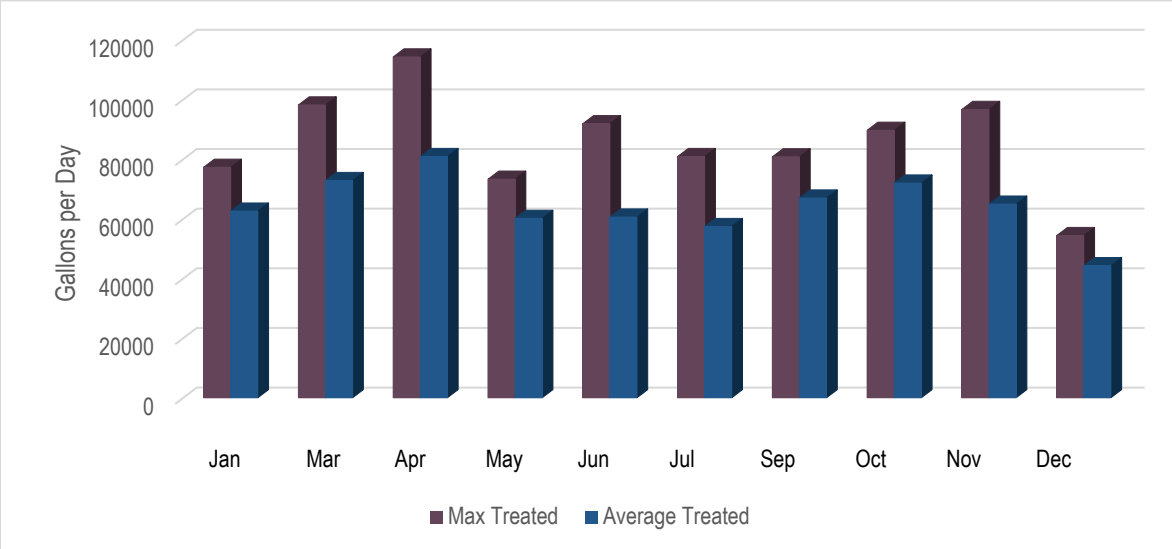
Potable water usage in the Ocklawaha community is depicted in Figure 1-1 and Figure 1-2 in gallons per day (GPD).

Figure 1-1: Ocklawaha Terrace Water Works Average Water Use 2019



Source: 2019 Monthly Operating Reports

Figure 1-2: Ocklawaha Pines Water Works Average Water Use 2019



Source: 2019 Monthly Operating Reports

The Sanitary Survey notes that the Pines Water Treatment Plant (WTP) exceeded its maximum-day design on several occasions in 2017, which caused the facility to adjust pressures between plants to assure design capacities are not exceeded for the Pines WTP. The 2019 data shows the Pines WTP at times still exceeds the Max-day Design capacity of 91,449 GPD.

2. WATER TREATMENT FACILITY

2.1 Facility Description

Ocklawaha Water Works has two Water Treatment Plants (WTPs) under the same FDEP permit. The two plants are called Ocklawaha Terrace and Ocklawaha Pines.

At Ocklawaha Pines, water is pumped from the well through a 3-inch check valve and a 3-inch Sensus flow meter before flowing into a temporary 5,000-gallon hydropneumatics storage tank. Water flows out of the storage tank and then out to distribution. The well pump turns on at when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the storage tank. There is a 3-inch bypass line for the tank that is normally closed.

At Ocklawaha Terrace, water is pumped from the well through a check valve and 3-inch Master flow meter before flowing into a 5,000-gallon hydropneumatics storage tank and then out to distribution. The well pump turns on when pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the storage tank. There is a 4-inch bypass line for the tank that is normally closed.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Pines Well 1	264 feet deep, 127 GPM	1985 (Sanitary Survey Report)	Poor
Source	Terrace Well 1	Unknown depth, 300 GPM	Unknown	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Pines Hydropneumatic Tank	7,500 gallons, Steel	Approx. 1983 (Tank Inspection Report)	Out of Service
Storage	Terrace Hydropneumatic Tank	5,000 gallons, Steel	2015 (Tank Plate)	Good
Building	Pines Station Building	10 by 6.75 feet CMU building	Unknown	Fair
Building	Terrace Station Building	4 by 6.75 feet wood building	Unknown	Poor

2.1.1 Source

2.1.1.1 Pines WTP

Ocklawaha Pines has one well that is located 5 feet from the storage tank and 6 feet from the pump station building. The entire site is secured by a locked fenced in area. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 264 feet deep with a submersible Sta-rite 127 GPM pump with a 7.5 HP motor. The well has a sample tap and a flapper check valve off the top of the well that is used as a vent, and has a 3-inch Sensus meter, as shown in Figure 2-1 and Figure 2-2. The well was running frequently while onsite because of a failed check valve and waterlogged tank.

Figure 2-1: Pines Well

Figure 2-2: Pines Source Meter

2.1.1.2 Terrace WTP

Ocklawaha Terrace has one well that is located within the locked fenced in area. The top of the well casing is 18 inches above grade and within a concrete pad, as shown in Figure 2-3. The well has one submersible Sta-Rite 300 GPM pump with a 15 HP motor. The well has a sample tap and a flapper check valve off the top of the well that is used as a vent, and a 3-inch Master Meter shown in Figure 2-4. The well casing was not completely sealed and there was an opening on the conduit connection to the well pump, shown in Figure 2-5.

Figure 2-3: Terrace Well

Figure 2-4: Terrace Well Source Meter

Figure 2-5: Terrace Well Condition

There is one potential contaminant within 1,000 feet of the Terrace and Pines site. The potential contaminant is a petroleum storage tank from a gasoline service station and is listed as a low concern level by the FDEP. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank for both WTPs. The chlorine used at both sites is 10.5% strength. At the Pines site, the chlorine is stored in a 240-gallon storage tank and uses a Chemtech diaphragm pump set at 80% stroke. At the Terrace site, the chlorine is stored in a 300-gallon storage tank and uses a 30 GPD Chemtech diaphragm pump set at 60% stroke. The average distribution chlorine residual in 2019 was 3.0 mg/L.

The chlorine pumps turn on when the well pumps are energized. Each chemical pump outlet is wired to the well pump stater.

Table 2-2: Ocklawaha Water Works Chemical Metering Pumps

Chemical Pump	Pines -Chlorine	Terrace - Chlorine
Number of Pumps	1	1
Brand	Chem- Tech	Chem- Tech
Model	Not legible	X030-XA-AAAFXXX
Size	Not legible	30 GPD

Figure 2-6: Pines Chlorine Treatment

Figure 2-7: Terrace Chlorine Treatment

2.1.3 Storage

2.1.3.1 Pines WTP

The Pines site has a 5,000-gallon temporary storage tank and a 7,500-gallon decommissioned storage tank. The 7,500-gallon steel hydropneumatic storage tank is original to the site, but it is in the process of being removed. The 7,500-gallon storage tank was last inspected in 2013 and was decommissioned before its 5-year inspection was due and the plant is currently using a temporary storage tank.

The 7,500-gallon tank began leaking 2 years ago and Sunshine attempted to repair the leaks with patches while diverting flow into a temporary 5,000-gallon tank. Sunshine representative stated that they abandoned the tank after multiple repairs and had begun taking out large pieces of the tank.

The well currently bypasses the decommissioned storage tank using the existing bypass line and flows into the temporary storage tank. The operating set points for the temporary tank are to turn on the well at 45 psi and turn off the well at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The temporary tank is equipped with a sight tube and pressure gauge for quick reference. The temporary tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The temporary tank is equipped with a portable air compressor connector on the sight tube to inject air if needed.

On May 1, 2019, Sunshine Utilities was issued a construction permit from FDEP to remove the existing failed 7,500-gallon tank and replace it with a 5,000-gallon tank. The permit expiration date is April 30, 2024, and transferable to a new owner only upon FDEP approval, and persons proposing to transfer the permit must jointly apply within 30 days after the sale or legal transfer of ownership. Please see Appendix B for the 2019 Construction Permit. At the time of the site visit, Sunshine Utilities stated they had not purchased a new tank or have a timeframe of the repair.

Figure 2.8 and Figure 2.9 depict the storage tanks.

Figure 2-8: Pines Decommissioned Storage Tank

Figure 2-9: Pines Temporary Storage Tank and Decommissioned Storage tank

2.1.3.2 Terrance WTP

The Terrace plant has a 5,000-gallon hydropneumatic storage tank on-site. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line, a 4-inch tank drain located off the side of the tank, and a 2-inch tank drain located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off the well at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, and the pressure recorded during the site inspection was 40 psi. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup. The tank was constructed in 2015 and is due for its first formal 5-year tank inspection. Figure 2-10 is a view of the Terrace WTP.

Figure 2-10: Terrace Storage Tank and Station Building

2.1.4 Pump Station Buildings

2.1.4.1 Pines WTP

The Pines WTP has a 10-foot by 6.75-foot CMU building with a wooden roof. The building has a doorway with a width of 41 inches but has no door. The mortar between the CMU bricks is beginning to fail on many portions of the building and does not offer total protection from rain or insects. The site is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite.

Figure 2-11: Pines Pump Station Building

2.1.4.2 Terrace WTP

The Terrace WTP has a 4-foot by 6.75-foot wooden building. The building has a single door that opens out with a width of 32 inches. The building had no evidence of roof leaks but had some evidence of mouse droppings inside the building. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite. The building is in poor condition with corrosion on the door and some evidence of moisture; however, it does not store anything inside other than a logbook and electrical outlet. The building is shown in Figure 2-8, and the corrosion on the door is shown in Figure 2-10.

Figure 2-12: Terrace Pump Station Door

2.1.5 Back-Up Power

There is no emergency generator onsite or quick-connect for a portable generator at the Terrace site. The Pines site has a 12 kW Briggs and Stratton emergency generator unit onsite to power the well pump if there is an interruption in power supply (Figure 2-13). The generator does not have an automatic exerciser, and the site is equipped with an automatic transfer switch. The generator runs on propane and is supplied by a 120-gallon propane tank. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-13: Pines Back-up Power Generator

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There were no water quality or MCL exceedances reported in the annual drinking water quality report for the previous three years for both the Pines and Terrace sites. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey was conducted on August 16, 2018 and the report noted one deficiency related to an exceedance of the maximum day design capacity. The plant was brought back into compliance on September 7, 2018 because Sunshine Utilities adjusted the system pressures between the two plants to ensure that the maximum capacities are not exceeded.

Please refer to Appendix E for the Sanitary Survey Report. According to the Florida Department of Environmental Protection's database, the Ocklawaha Water Works plants have received 13 violations within the last 10 years. All the violations were related to late or missing monitoring and reporting. The most recent return to compliance date is February 3, 2020.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the sites, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The buildings onsite have been subject to degradation and general weathering over time. The buildings also offer little protection from weather and tampering and there is no door at the Pines Pump Station Building. It is recommended that the buildings be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-14), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended that a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-14: Pines WTP Well Pump Starter

2.3.2 Source of Supply

The 3-inch check valve on the Pines well has failed causing water to back-feed into the well, and the well pump was turning on frequently. The check valve should be replaced.

The Terrace WTP well has a 3-inch Master meter that is not compatible with the Mission Monitoring System. The meter should be changed out with a meter that has a 4-20 mA connection so it could we wired into the Mission Monitoring System.

The well pump wires for the Terrace well were exposed. These should be sealed in a conduit to prevent contamination.

2.3.3 Water Treatment and Pumping

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there is a 240-gallon tank located outside at the Pines WTP, and a 300-gallon tank located outside at the Terrace WTP. These containers should be stored on a secondary containment pallet that contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005.

In order to install secondary containment for the chemical storage, a structure will have to be installed to protect the secondary containment from filling with rainwater. In addition, a structure around the chemical drums will offer an added protection from damage. This can be accomplished by changing out the bulk tanks with a more compact 275-gallon intermediate bulk container (IBC), and storing the chemicals in an enclosed container such as the PIG IBC Roll Top Hardcover Spill Pallet, with a 360-gallon containment capacity. An example is shown in Figure 2-14.

Figure 2-15: PIG 275-gallon IBC and Enclosure

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine at both sites. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration basin will likely need to be installed for the discharge water.

The Pines hydropneumatic tank is out of service with a temporary tank on site. A new permanent hydropneumatic tank should be installed. The tank supports also need to be replaced with the new tank.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1985 and supplies water using a 2 to 6-inch steel and PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed located at most roadway intersections. One blow-off valve was noted on the water distribution map. The system provides the community with potable water only (no fire flow water).

Refer to Appendix F for a map of the water distribution system. Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Ocklawaha Water Works to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-3. The total cost estimate for Triage Repairs at Ocklawaha Water Works is: **$215,600**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$2,000
Upgrade Electrical (Terrace)	$15,000
Upgrade Electrical (Pine)	$20,000
Mission Monitoring at Well	$20,000
Total	$57,000

Table 4-2: Source of Supply Triage Repairs

Recommendation	Estimate
Replace Check Valve	$1,000
Total	$1,000

Table 4-3: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$7,600
Install New Pressure Tank (Pines)	$150,000
Total	$157,600

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Ocklawaha Water Works to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-5 through 4-6. The total cost estimate for Capital Improvements at Ocklawaha Water Works is: **$134,000**.

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$7,000
Total	$7,000

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$18,000
Transmitters and Other Monitoring Equipment	$5,000
Total	$23,000

Table 4-5: Water Distribution System Capital Improvements

Recommendation	Estimate
Automatic Flushing Units	$54,000
Total	$54,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$50,000
Total	$50,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

OCKLAWAHA WATER WORKS (2 WTPS)
SR 464 & CR 25
OCKLAWAHA, FL 34420

Public Water System ID: 3420939

Previously Known As:
OKLAWAHA WATER WORKS(2 WTPS)

County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 816
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5641	OCKLAWAHA TERRACE WELL	AAE0266	ACTIVE	Not Available	Floridan Aquifer
26574	OCKLAWAHA PINES	N/A	ACTIVE	264	Floridan Aquifer

Results:

GROUND WATER:

Number of Unique Potential Contaminant Sources: 1

Facility Type	Facility Class	Status	Name	Affected Well	Susceptibility Score	Concern Level
PETROLEUM STORAGE TANK	RETAIL STATION	OPEN	OCKLAWAHA QWIK KING FOOD STORE	5641	8.33	LOW

Last updated: February 19, 2020

Tallahassee, Florida 32399
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APPENDIX B: OCKLAWAHA PINES CONSTRUCTION PERMIT

FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD, SUITE 232
ORLANDO FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

May 1, 2019

ELECTRONIC CORRESPONDENCE
In the matter of an
Application for Permit by:

Dwaine Christmas, President
Sunshine Utilities of North Central Florida, Inc.
10230 E. Highway 25
Belleview, FL 34420
sunshineutl@aol.com

DEP File No. 0274426-002-WC
County: Marion

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number 0274426-002-WC for the Ocklawaha Pines Water Treatment Plant hydropneumatic tank replacement, issued pursuant to Section 403.861(9), Florida Statutes.

This permit is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the paragraphs below or unless a request for extension of time in which to file a petition is filed within the required timeframe and conforms to Rule 62-110.106(4), F.A.C. Upon timely filing of a petition or a request for an extension, this permit will not be effective until further Order of the Department.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) with the Agency Clerk for the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-106.205, F.A.C.

A petition must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts which petitioner contends warrant reversal or modification of the Department's action;
(f) A statement of the specific rules or statutes the petitioner contends requires reversal or modification of the Department's action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
(g) A statement of the relief sought by petitioner, stating precisely the action that the petitioner wants the Department to take.

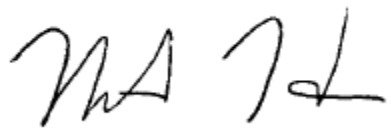
A petition that does not dispute the materials facts on which the Department's action is based shall state that no such facts are in dispute and otherwise contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any such final decision of the Department on the petition have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to section 120.68 of the Florida Statutes, by filing a Notice of Appeal pursuant to Rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



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Nathan Hess
Permitting and Waste Cleanup Program Administrator
Central District Office

Enclosures: Permit No. 0274426-002-WC

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Dwaine Christmas, Sunshine Utilities of North Central Florida, Inc. [sunshineutl@aol.com]
Robert M. Couch III, P.E., Enviro-Tech, Inc. [envirotech@ymail.com]
Reggie Phillips, Daissan A. Villareal-FDEP

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Mandakini Patel — May 1, 2019

Clerk — Date

FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD, SUITE 232
ORLANDO FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

May 1, 2019

ELECTRONIC CORRESPONDENCE

PERMITTEE:
Sunshine Utilities of North Central Florida, Inc.
10230 E. Highway 25
Belleview, FL 34420

PWS ID NUMBER: 3420939
PERMIT NUMBER: 0274426-002-WC
DATE OF ISSUE: May 1, 2019
EXPIRATION DATE: April 30, 2024
COUNTY: Marion
PROJECT: Ocklawaha Pines Water Treatment Plant (WTP No. 2) Modification

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-550, 62-555 and 62-560. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

TO CONSTRUCT: The replacement of the existing 7,500 gallons (Gals) hydropneumatic tank with a new 5,000-Gal ASME hydropneumatic tank in Ocklawaha Pines Water treatment Plant (WTP No. 2).

The Ocklawaha Pines WTP is an existing facility which serves the Ocklawaha Pines subdivision. The Ocklawaha Pines Water Treatment Plant has an existing 7,500-Gal tank that is corroded. It is proposed to replace this tank with a 5,000-Gal tank. The number of residential dwellings being served Ocklawaha Water Works, consisting of two plants namely the Ocklawaha Pines WTP and the CR 25 Ocklawaha Terrace WTP, is 353 units with a population of 1,130 people. The projected service area is built out and not expected to increase.

PROPOSED CONSTRUCTION INCLUDES THE FOLLOWING COMPONENTS:

1. **One 5,000-Gal horizontal hydropneumatic tank** that meets the ASME Section VIII Unfired Pressure Vessels Code Requirements and with openings per the design drawings and specifications submitted. The tank shall be 72 inches in diameter and 24 inches long and shall meet the Standard Engineering Specification for Unfired Pressure Vessel and Specification for General Welding and NDE Requirements for Vessels, Heat Exchangers, Fired-Heater Coils, Boilers and Compressors. The hydropneumatic tank shall have a 3-inch bypass piping to permit operation of the system while the tank is being repaired or

painted. The tank shall have an access manhole, a drain, and control equipment consisting of a pressure gauge, water sight glass, automatic or manual air blow-off, means for adding air, and pressure operated start-stop controls for the pumps. A pressure relief valve shall be installed and be capable of handling the full pumping flow rate at the pressure vessel design limit.

2. **Associated piping, valves, fittings and appurtenances.**

The Ocklawaha Pines WTP is a Community Water System with a rated design capacity of 91,440 gallons per day (GPD). The plant is classified as Category V Class D (50,000 GPD up to 0.25 MGD- hypochlorination). Staffing is by Class D or higher operator: 3 visits per week on nonconsecutive days for a total of 0.30 hour/week. The lead/chief operator must be Class D or higher.

IN ACCORDANCE WITH: This permit does not pertain to any wastewater, storm water or dredge and fill aspects of the project. This permit is issued based upon the dates and submissions during the application process as follows: Construction plans, specifications and details received on May 1, 2019.

LOCATION: The project is located at the Ocklawaha Pines water treatment plant, approximately 350 feet northwest of the intersection of Roberts Circle Road and Louise Lane in Ocklawaha, Florida, with Latitude 29°02'19.96" N and Longitude 82°48.89" W.

Work must be conducted in accordance with the General and Specific Conditions, attached hereto.

The permittee shall be aware of and operate under the Permit Conditions below. These applicable conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes. [F.A.C. Rule 62-555.533(1)]

A. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times (reasonable time may depend on the nature of the concern being investigated), access to the premises where the permitted activity is located or conducted to:

    a. Have access to and copy any records that must be kept under conditions of the permit;
    b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
    c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

    a. A description of and cause of noncompliance; and
    b. The period of noncompliance, including dates and times; or, if not corrected, the

anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

    a. Determination of Best Available Control Technology (BACT)
    b. Determination of Prevention of Significant Deterioration (PSD)
    c. Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
    d. Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this

permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:
    i. the date, exact place, and time of sampling or measurements;
    ii. the person responsible for performing the sampling or measurements;
    iii. the dates analyses were performed;
    iv. the person responsible for performing the analyses;
    v. the analytical techniques or methods used;
    vi. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS

B. Construction Activities

1. **Permit Modification**
All construction must be in accordance with this permit. Before commencing work on project changes for which a construction permit modification is required pursuant to Rule 62-555.536(1), F.A.C., the permittee shall submit to the Department a written request for a permit modification. Each such request shall be accompanied by one copy of a revised construction permit application, the proper processing fee and one copy of either a revised preliminary design report or revised drawings, specifications and design data. [F.A.C. Rule 62-555.536].

2. **Professional Engineer Supervision**
Permitted construction or alteration of public water supply systems must be supervised during construction by a professional engineer registered in the State of Florida if the project was designed under the responsible charge of a professional engineer licensed in the State of Florida. The permittee must retain the service of a professional engineer registered in the State of Florida to observe that construction of the project is in accordance with the engineering plans and specifications as submitted in support of the application for this permit. [F.A.C. Rule 62-555.520(3)].

3. **Artifacts**
If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoe remains, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered

at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section by telephone at 850.245.6333 or 800.847.7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources and the permitting agency. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately, and the proper authorities notified in accordance with Section 872.05, F.S.

4. **Delays and Extension of Permit**

If delays will cause project completion to extend beyond the expiration date of this permit, the permittee shall submit to the Department a request to extend the expiration date of this permit including the appropriate processing fee. This request shall specify the reasons for the delay and shall be submitted to the Department for approval prior to the expiration date of this permit. Note that no specific construction permit shall be extended so as to remain in effect longer than five years. [F.A.C. Rule 62-555.536(4)].

5. **Permit Transfer**

In accordance with General Condition #11 of this permit, this permit is transferable only upon Department approval. Persons proposing to transfer this permit must apply jointly for a transfer of the permit within 30 days after the sale or legal transfer of ownership of the permitted project that has not been cleared for service by the Department using form, 62-555.900(8), Application for Transfer of a PWS Construction Permit along with the appropriate fee. [F.A.C. Rule 62-555.536(5)]

6. **Obligation to Obtain Other Permits**

This permit satisfies Drinking Water permitting requirements only and does not authorize construction or operation of this facility prior to obtaining all other necessary permits from other program areas within the Department, or required permits from other state, federal, or local agencies.

7. **Limits on Authorizing Connections**

This permit is for CONSTRUCTION ONLY of the components found on Page 1 of this permit. This permit shall not infer that the clearance necessary for connection will be granted. Partial clearance may be granted, if required.

8. **Contamination**

If contamination is found at the construction site, work shall be stopped, and the proper authorities notified. With the approval of the Department, ductile iron pipe and fittings, and solvent resistant gaskets materials shall be used in the contaminated area. The ductile iron pipe shall extend 100 feet beyond any solvent noted. Any contaminated soil that is excavated shall be placed on an impermeable mat, covered with waterproof covering, and

held for disposal. If the site cannot be properly cleaned, then consultation with the Department is necessary prior to continuing with the project construction.

9. **Wetlands Jurisdiction**
This permit does not constitute approval of construction on jurisdictional wetland areas; therefore, such approval must be obtained separately from the Water Management District or from DEP Environmental Resource Permitting (ERP) Section, as applicable. Permittee shall provide a copy of the permit approval to the Department when water main installation involves activities on wetlands.

10. **Security**
Permittee shall ensure that the well and drinking water treatment facilities will be protected to prevent tampering, vandalism, and sabotage as required by Rules 62-555.315(1) and 62-555.320(5), F.A.C.

C. Construction Standards

1. **National Sanitation Foundation (NSF)**
All products, including paints, which shall come into contact with potable water, either directly or indirectly, shall conform to National Sanitation Foundation (NSF) International, Water Chemicals Codex, Food Chemicals Codex, American Water Works Association (AWWA) Standards and the Food and Drug Administration, as provided in Rule 62-555.320(3), F.A.C.

2. **American Water Works Association (AWWA)**
Water supply facilities, including mains, pipe, fittings, valves, fire hydrants, and other materials shall be installed in accordance with the latest applicable AWWA Standards and Department rules and regulations. The system shall be pressure and leak tested in accordance with AWWA Standard C600 C603, or C605, as applicable, and disinfected in accordance with AWWA Standard C651-653, as well as in accordance with Rule 62-555.340, F.A.C.

3. **Lead Free**
The installation or repairs of any public water system, or any plumbing in residential or nonresidential facilities providing water for human consumption, which is connected to a public water system shall be lead free in accordance with Rule 62-555.322, F.A.C.

4. **Asbestos**
If any existing asbestos cement (AC) pipes are replaced under this permit, the permittee shall do so in accordance with the applicable rules of Federal Asbestos Regulation and Florida DEP requirements. For specific requirements applicable to AC pipes, the permittee should contact the Central District Office by telephone at (407) 897-4100 prior to commencing any such activities. Please be aware that a notification is required to be submitted to the Department at least 10 days prior to the start of a regulated project.

5. **Hazard and Reuse Setbacks**
Setback distances between potable water wells and sanitary hazards shall be in accordance with Rule 62-555.312, F.A.C. Reclaimed water land application areas, if applicable, must not be located within the setback distance from potable water supply wells established in Chapter 62-610, F.A.C.

6. **Line Separation**
Permittee shall maintain vertical clearance and horizontal separation between water mains and sanitary sewers, storm sewers, etc. unless approved otherwise by the Department, as provided in Rule 62-555.314, F.A.C., and Section 8.6 of *Recommended Standards for Water Works*, a manual adopted by reference in Rule 62-555.330(3), F.A.C.

7. **Color Coding of Pipes**
The new or altered aboveground piping at the drinking water treatment plant shall be color coded and labeled as recommended in Section 2.14 of "Recommended Standards for Water Works, 1997 Edition". [F.A.C. Rule 62-555.320(10)]

8. **Cross Connections**
Permittee shall ensure that there shall be no cross-connection with any non-potable water source in accordance with Rule 62-555.360, F.A.C.

1. Operational Requirements

1. **Staffing**
The Ocklawaha Pines WTP is a Community Water System with a rated design capacity of 91,440 gallons per day (GPD). The plant is classified as Category V Class D (50,000 GPD up to 0.25 MGD- hypochlorination). Staffing is by Class D or higher operator: 3 visits per week on nonconsecutive days for a total of 0.30 hour/week. The lead/chief operator must be Class D or higher. [F.A.C. Rule 62-699.310].

2. **Operation and Maintenance to comply with Water Quality Standards**
The supplier of water shall operate and maintain the public water system so as to comply with applicable standards in Chapter 62-550 and Rule 62-555.350, F.A.C.

3. **Operation and Maintenance Manual**
The permittee shall provide an operation and maintenance manual for the new or altered treatment facilities to fulfill the requirements under Rule 62-555.350(13), F.A.C. The manual shall contain operation and control procedures, and preventative maintenance and repair procedures, for all plant equipment and shall be made available for reference at the plant or at a convenient location near the plant. Bound and indexed equipment manufacturer manuals shall be considered sufficient to meet the requirements of the subsection.

4. **Monthly Operating Reports (MORs)**
The permittee shall submit monthly operation reports (MORs), DEP Form 62-555.900(3), for the groundwater treatment, to the Department, no later than the tenth of each succeeding month. Systems with multiple treatment plants must also submit DEP Form 62-555.900(11) entitled "Monthly Operation Report for Summation of Finished-Water Production by CWSs That Have Multiple Treatment Plants."

5. **Record Drawings**
The permittee shall have complete record drawings produced for the project in accordance with Rule 62-555.530(4), F.A.C.

6. **State Watch Office**
The permittee or suppliers of water shall telephone the State Watch Office (SWO), at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system in accordance with Rule 62-555.350(10), F.A.C.

E. Monitoring Provisions

1. **Chlorine Residual**
The Water Treatment Plant shall maintain throughout the distribution system, a minimum continuous and effective free chlorine residual of 0.2 mg/L (or its equivalent). A minimum system pressure of 20 psi must be maintained throughout the system. Also, safety equipment shall be provided and located outside of chlorine room.

F. Clearance Requirements

1. Clearance Letter
The permittee must instruct the engineer of record to request system clearance from the Department within sixty (60) days of completion of construction, testing and disinfecting the system. Bacteriological test results shall be considered unacceptable if the test were completed more than 60 days before the Department received the results. [F.A.C. Rule 62-555.340(2)(c)]

Permitted construction or alteration of a public water system may not be placed into service until a letter of clearance has been issued by this Department. [F.A.C. Rule 62-555.345]

2. Requirements to Obtain Clearance
After submitting the permit clearance package, the permittee shall contact the Department by telephone at 407.897.4100 or by email at DEP_CD@dep.state.fl.us to establish a date/time for an inspection of the components contained in this permit.

a. The engineer's *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components Into Operation* {DEP Form 62-555.900(9)};

b. Certified record drawings, if there are any changes noted for the permitted project.

c. Copy of a satisfactory pressure test of the process piping, if applicable, performed in accordance with AWWA Standards. [F.A.C. Rule 62-555.320(21)(a)(1)]

d. Analytical results from two consecutive days of satisfactory bacteriological samples from locations found in paragraph 3 below.

e. Provide evidence that the required operation and maintenance manual for the water treatment plant is in place, which will be updated thereafter as necessary to reflect plant modifications. The manual shall contain operation and control procedures, and preventive maintenance and repair procedures, for all plant equipment and shall be made available for reference at the plant or at a convenient location near the plant. Bound and indexed equipment manufacturer manuals shall be considered sufficient to meet the requirements of this subsection. [F.A.C. 62-555.350 (13)]

f. Photographs of the new hydropneumatic tank.

3. Cleaning, Disinfecting, and Bacteriological Samples

The new facilities shall be cleaned, disinfected, and bacteriologically cleared in accordance with Chapter 62-555, F.A.C. The bacteriological clearance data shall be submitted to the Department with the engineer's certification of construction completion. [F.A.C. 62-555.340 and 62-555.315(6)(b),]

Bacteriological Sampling Locations: Copies of results from satisfactory bacteriological samples shall be submitted with the clearance package. Samples shall be taken from locations listed below, in accordance with Rules 62-555.315 (6), 62-555.340 and 62-555.330, F.A.C. and American Water Works Association (AWWA) Standard C 651-92. The engineer-of-record shall submit a sampling plan showing the location of the bacteriological sampling points, considering the following location:

- **At new hydropneumatic tank discharge pipe.**

In order to facilitate the issuance of a letter of clearance, the Department requests that all of the above information be submitted as one package.

Please submit the entire clearance document package in electronic format to DEP_CD@dep.state.fl.us. If the file is very large, you may post it to the Water Electronic Submittal folder on the Central District's ftp site at:

ftp://ftp.dep.state.fl.us/pub/incoming/Central_District/Water%20Electronic%20Applications.

After posting the document, send an e-mail to DEP_CD@dep.state.fl.us, alerting the Department that it has been posted.

Any submitted drawings (should be sized 11" x 17") and the engineer of record's signed seal and dates on the required document must be legible for acceptance.

Forms: http://www.dep.state.fl.us/water/drinkingwater/forms.htm

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

_____

Nathan Hess
Permitting and Waste Cleanup Program Administrator
Central District Office

APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

OCKLAWAHA

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	334
PWS:	3420939
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 8" and (1) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 264 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	102235 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	21 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3420939**	
System name and address	**OCKLAWAHA TERR & OCKLAWAHA PINES**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**12780 E HWY 25** **14455 E HWY 25**	
Population served and service connections.	Population =	Connections = 355
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	102235 GPD
Maximum Daily Demand (gpd)	127400 GPD
System Capacity (gpd)	307440 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	E HWY 25	E HWY 25		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	200 FT	264 FT		
Well Yield (gpd)	432000 GPD	182880 GPD		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta-Rite		
Capacity (gpm)	300 GPM	127 GPD		
Motor Manufacturer	Franklin	Franklin		
Horsepower	15 HP	7HP		
Phase	1	1		
Volts/Amps	230 volts	230 Volts		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Ocklawaha Water Plants Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3420939 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

☐ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement.
The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ■ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No
If Yes, was a copy of your CCR sent to the PSC, as required by rule? ■ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3. and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Ocklawaha Water Plants

Florida Department of Environmental Protection Public Water System ID # 3420939

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Department of Environmental Protection performed a Source Water Assessment on our system to provide information about any potential sources of contamination in the vicinity of our wells. There is one potential source of contamination identified with a low level of concern. The assessment results are available of the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR OCKLAWAHA WATER PLANT

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	(pCi/L)	APR'15	No	2.4	ND - 2.4	0	15	Erosion of natural deposits
Radiu 226 + 228	(pCi/L)	APR'15	No	1.5	ND - 1.5	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAR '18	No	0.1	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAR '18	No	0.022	0.014 - 0.022	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	MAR '18	No	0.19	0.17 - 0.19	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Lead (point of entry)	(ppb)	MAR '18	No	2.3	ND - 2.3	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Sodium	(ppm)	MAR '18	No	22	19 - 22	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	3.2	0.4 - 3.3	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	SEP '19	No	18.6	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	SEP '19	No	36.7	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	AUG '18	No	0.061	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019OcklawahaWater.pdf

APPENDIX E: SANITARY SURVEY REPORT

Florida Department of Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

September 11, 2018

Dewaine Christmas
Sunshine Utilities of Central Florida, Inc.
10230 SE Highway 25
Belleview, FL 34420
Sunshineutl@aol.com

Re: Ocklawaha Water Works
PW Facility ID #3420939
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on August 16, 2018. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Brad Whidden at 407-897-4315 or via e-mail at Brad.Whidden@dep.state.fl.us.

Sincerely,

Kimberly Rush, P.E., Assistant Director
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **CR 25 PLANT OCKLAWAHA TERRACE** County Marion PWS ID # **3420939-1**
Plant Location SR 464 and CR 25, Ocklawaha, FL 34420 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352-347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 8/16/18 Last Survey Date 9/30/15 Last Compliance Inspection Date 11/10/99

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 216,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connection 329
Population Served 1,130 Basis Owner

OPERATION & MAINTENANCE LOG: Yes
Location Plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments Visits must be on non-consecutive days and total at least 0.3 hours per week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 30,767 gpd
Maximum Day (from MORs) 58,000 gpd 02/18
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 3" Master
Date Last Calibrated 7/14/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☒ Emergency Water Source Ocklawaha Pines WTP
Emergency Water Capacity 91,440 gpd

STANDBY POWER SOURCE: Yes
Source Generator at Ocklawaha Pines WTP
Capacity of Standby (kW) 12
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load Unknown
What equipment does it operate?
☒ Well Pumps 1
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☒No
Comments There is no audio-visual alarm at this water treatment plant.

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M
Operation & Maintenance Manual ☒ Yes ☐ No
Preventive Maintenance Program ☒ Yes ☐ No

Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date N/A
Comments N/A

PWS ID # 3420939-1
Date 8/16/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1(AAE0266)			
Year Drilled		Unknown			
Depth Drilled		Unknown			
Drilling Method		Unknown			
Type of Grout		Unknown			
Static Water Level		Unknown			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		Unknown			
Diameter (outside casing)		8”			
Material (outside casing)		Black steel			
Well Contamination History		*			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	300			
	Motor Horsepower	15			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		Yes			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		N/A			

COMMENTS .

PWS ID # 3420939
Date 8/16/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech X 2 Capacity 30 gpd
Chlorine Feed Rate 80% & 50% of stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant n/a Remote 2.2+
Remote tap location Dollar General
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to the hydropneumatic tank.
Booster Pump Info
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms:			
Loss of Cl_2 capability	☐	☐	
Loss of Cl_2 residual	☐	☐	
Cl_2 leak detection	☐	☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H1		
Capacity (gal)	5,000		
Material	Steel		
Gravity Drain	Yes		
By-Pass Piping	Yes		
Protected Openings	Yes		
Sight Glass or Level Indicator	Yes		
PRV/ARV	PRV		
Pressure Gauge	Yes		
On/Off Pressure	40/60		
Access Secured	Yes		
Access Manhole	Yes		
Tank Sample Tap Location	Effluent pipe		
Date of Inspection	n/a*		
Date of Cleaning	n/a*		

Comments *New tank brought online on 1/11/2016

HIGH SERVICE PUMPS

Pump Number			
Type			
Make			
Model			
Capacity (gpm)			
Motor HP			
Date Installed			

Comments

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **OCKLAWAHA PINES** County Marion PWS ID # **3420939-2**
Plant Location SE 145th Avenue, Ocklawaha, FL 34420 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352-347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 8/16/18 Last Survey Date 9/30/15

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 91,440 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connection 329
Population Served 1,130 Basis Owner

OPERATION & MAINTENANCE LOG: Yes
Location Plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments Visits must be on non-consecutive days and total at least 0.3 hours per week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 64,189 gpd
Maximum Day (from MORs) 147,900 gpd 09/17
Comments: This WTP exceeded its maximum-day design on several occasions within the past year. The facility will adjust pressures between plants to assure that the design capacities are not exceeded for this plant.

Flow Measuring Device Flow Meter
Meter Size & Type 3" Sensus
Date Last Calibrated 7/14/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source Ocklawaha Terrace
Emergency Water Capacity 216,000

STANDBY POWER SOURCE: Yes
Source Diesel generator
Capacity of Standby (kW) 12
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load Unknown
What equipment does it operate?
☒ Well Pumps 1
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☒Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M
Operation & Maintenance Manual ☒ Yes ☐ No
Preventive Maintenance Program ☒ Yes ☐ No

Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date N/A
Comments N/A

PWS ID # 3420939-2
Date 8/16/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1			
Year Drilled		1985			
Depth Drilled		264’			
Drilling Method		Cable tool			
Type of Grout		Neat Cement			
Static Water Level		Unknown			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		189’			
Diameter (outside casing)		4”			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	127			
	Motor Horsepower	7.5			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		Yes			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		N/A			

COMMENTS _____

PWS ID # 3420939-2
Date 8/16/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 30 gpd
Chlorine Feed Rate 80% & 50% of stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant n/a Remote 2.2+
Remote tap location Dollar General
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to the hydropneumatic tank.
Booster Pump Info
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H1		
Capacity (gal)	7,500		
Material	Steel		
Gravity Drain	Yes		
By-Pass Piping	Yes		
Protected Openings	Yes		
Sight Glass or Level Indicator	Yes		
PRV/ARV	PRV		
Pressure Gauge	Yes		
On/Off Pressure	40/60		
Access Secured	Yes		
Access Manhole	Yes		
Tank Sample Tap Location	Effluent pipe		
Date of Inspection	06/2013		
Date of Cleaning	06/2013		

Comments The 7,500 gallon tank was taken offline 6 months ago and is due for replacement. The system is currently using a temporary 3,000 gallon tank. The temporary tank was brought online in 3/2018.

HIGH SERVICE PUMPS

Pump Number			
Type			
Make			
Model			
Capacity (gpm)			
Motor HP			
Date Installed			

Comments

PWS ID # 3420939
Date 8/16/18

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
MOR indicates the max day capacity was exceeded	62-555.350(4)	Investigate the cause of the exceedance of the plant's permitted design capacity and provide a written response.	9/7/18: The facility will be adjusting system pressures between the two plants to ensure that max capacities are not exceeded	No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have been received.
- Monitoring schedules are available on the Central District's FTP site: https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is

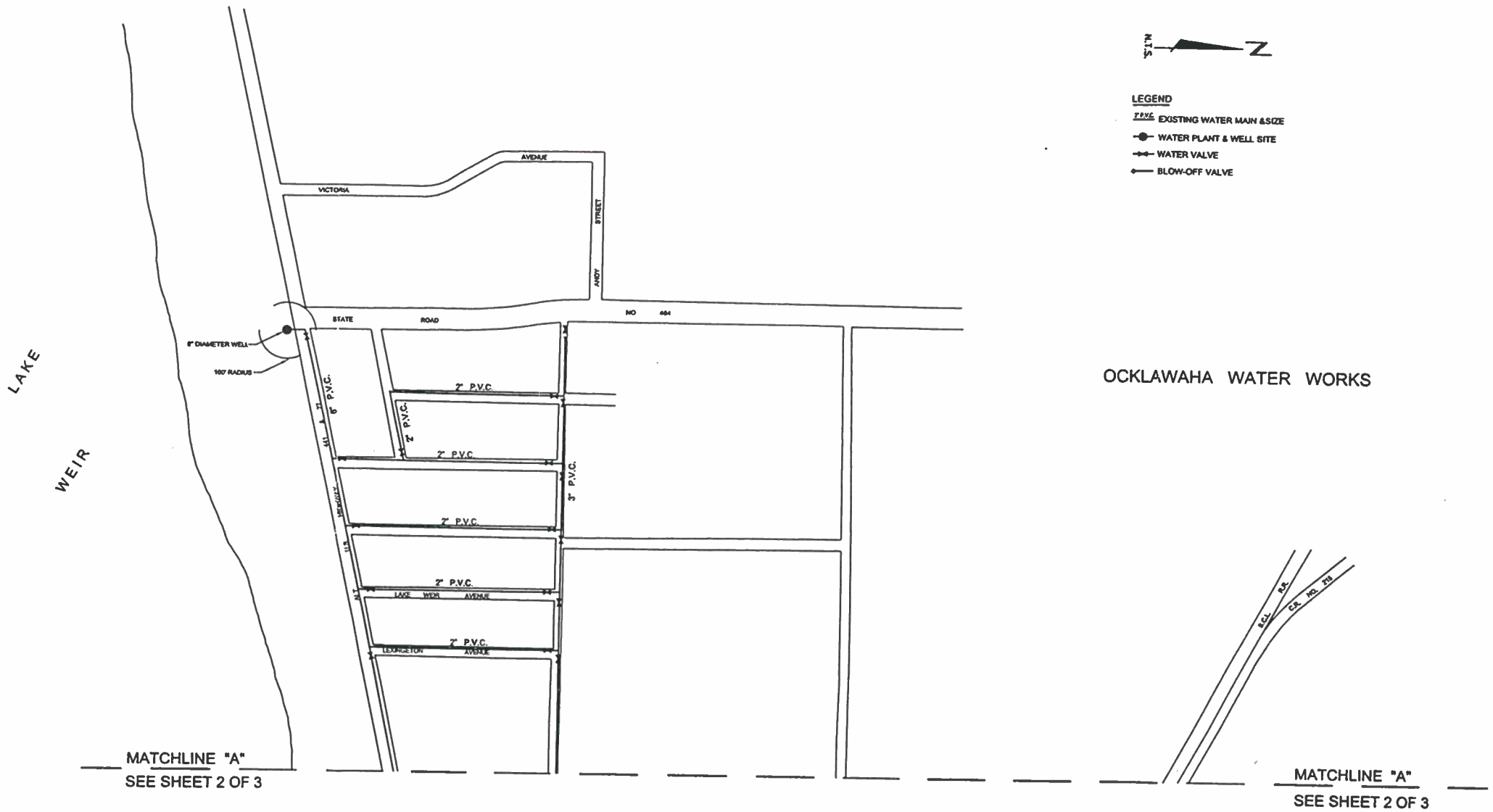
expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335 F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

COMMENTS(continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Brad Whidden	Kimberly Rush
Inspector Signature	*Reviewer Signature*
Brad Whidden	Kim Rush
Printed Name	*Printed Name*
Environmental Specialist	Assistant Director
Title	*Title*
8/28/2018	9/11/2018
Date	*Date*

APPENDIX F: DISTRIBUTION MAP



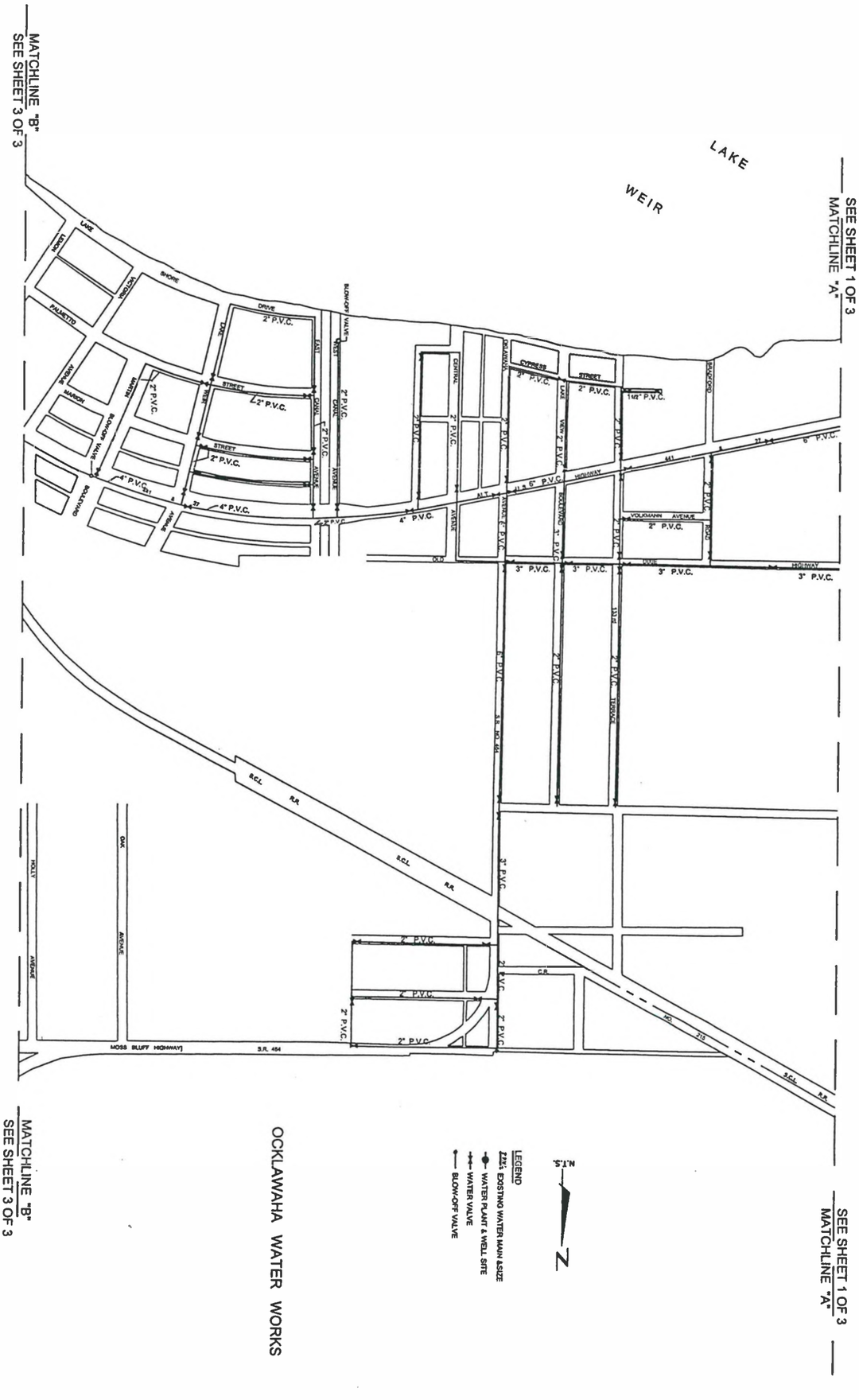
H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST. SUITE 802 OCALA, FLORIDA 34471
PHX (352) 840-9588
FAX (352) 840-9774

FACILITY WATER SYSTEM

OCKLAWAHA WATER WORKS
SUNSHINE UTILITIES
BELLEVIEW, FLORIDA

DESCRIPTION	DATE	CHK	DRN
ORIGINAL ISSUE	15 JUL 99	RJW	SAO

Project No. 9636-02



DRN	CHK	DATE	DESCRIPTION
SAO	RJW	15 JUL 99	ORIGINAL ISSUE

Project No. 9636-02

FACILITY WATER SYSTEM

OCKLAWAHA WATER WORKS
SUNSHINE UTILITIES
BELLEVIEW, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17TH ST. SUITE 802
OCALA, FLORIDA 34471
FAX (352) 840-9588
(352) 840-9774

SEE SHEET 2 OF 3
MATCHLINE "B"

SEE SHEET 2 OF 3
MATCHLINE "B"

LAKE WEIR

LAKE WEIR

THE SANCTUARY Y-93 49129

THE SANCTUARY Y-93 49128

ALT. 27 & 441

SE 135TH STRL

SE 143RD AVE

SE 142ND AVE

SE 141ST AVE

SE 140TH AVE

SE 139TH AVE

SE 138TH AVE

SE 137TH AVE

SE 136TH AVE

SE 135TH AVE

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SE 7TH AVE

SE 6TH AVE

SE 5TH AVE

SE 4TH AVE

SE 3RD AVE

SE 2ND AVE

SE 1ST AVE

SE PINEAPPLE AVE

SE MAGNOLIA AVE

SE WILD AVE

SE BANANA AVE

SE ORANGE AVE

SE OAK COURT

SE OAK DRIVE

SE OAK TERRACE

SE OAK TRAIL

SE OAK VIEW DRIVE

SE OAK WAY

SE OAKLEAF DRIVE

SE OAKLEAF TERRACE

SE OAKLEAF TRAIL

SE OAKLEAF WAY

SE OAKLEAF CIRCLE

SE OAKLEAF COURT

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Ponderosa Pines

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

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COMMITMENT & INTEGRITY DRIVE RESULTS

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CSWR
July 2021

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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Ponderosa Pines. A summary of the main parameters for the water system are summarized below in Table 1-1.

Table 1-1: Ponderosa Pines System Information

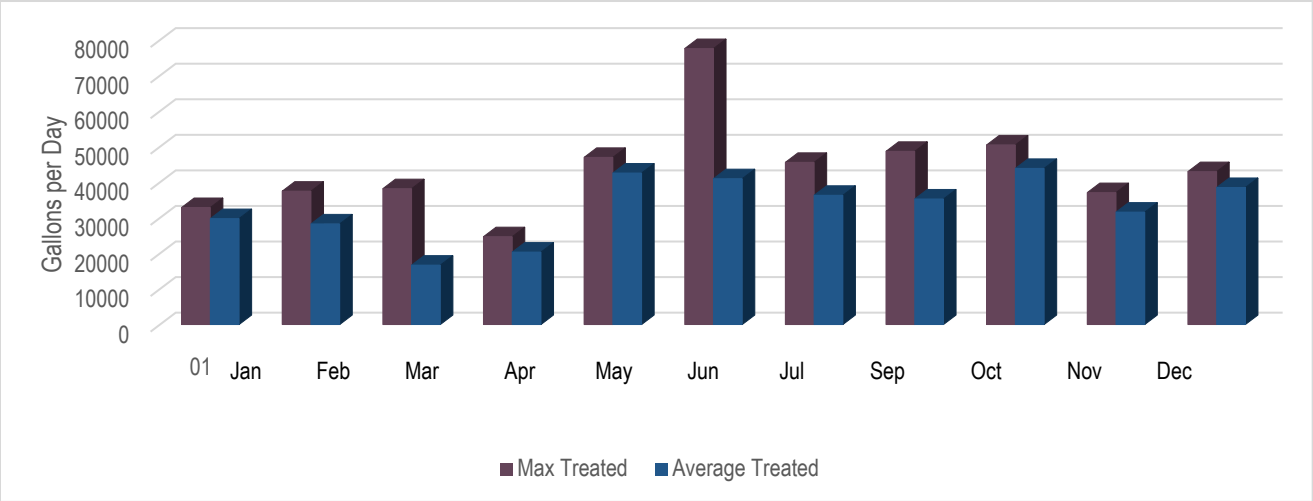
Water System Name	Ponderosa Pines (2 WPS)
PWD ID Number	3424062-1 & 3424062-2
Classification	Community
Plant Category & Class	5D
Street Address	Corner of SE 185th Terrace and SE 20th Place (WTP 1) 18536 SE 21st Lane (WTP 2)
City, State	Silver Springs, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	465 (Sanitary Survey)
Number of Service Connections	186 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	33,131 GPD (WTP 1) 2,332 GPD (WTP 2) (2019 Monthly Reporting)
Maximum Day Water Use	77,600 GPD (WTP 1) 15,000 GPD (WTP 2) (Sanitary Survey)
Max-Day Design Capacity	40,320 GPD (WTP 1) 43,200 GPD (WTP 2) (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Maximum day capacitie for WTP 1 was exceeded multiple times in 2019. FDEP stated that an email from Sunshine Utilities was sent on 3/24/20 that indicated that pressure settings were adjusted to increase usage of WTP 2 to compensate.

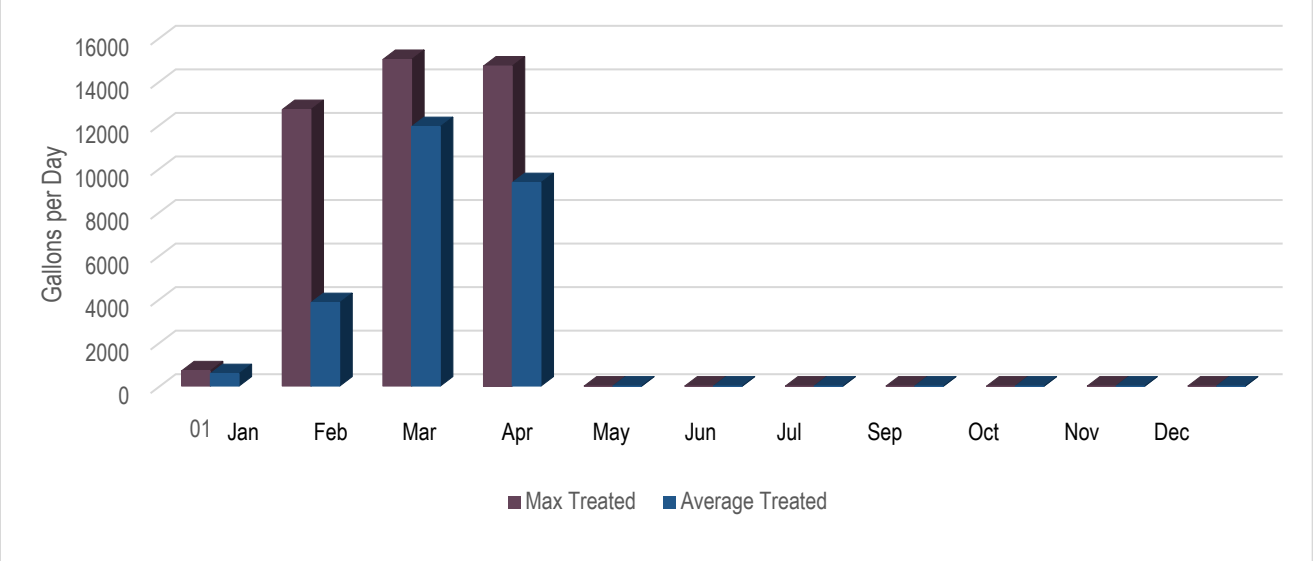
Potable water usage in the Ponderosa Pines community is depicted in Figure 1-1, and Figure 1-2.

Figure 1-1: Ponderosa Pines WTP 1 Average Water Use 2019



Source: 2019 Monthly Operating Reports

Figure 1-2: Ponderosa Pines WTP 2 Average Water Use 2019



Source: 2019 Monthly Operating Reports

2. WATER TREATMENT FACILITY

2.1 Facility Description

Ponderosa Pines has two Water Treatment Plants (WTPs) under the same FDEP permit. The two plants are called Ponderosa Pines WTP 1 and Ponderosa Pines WTP 2.

At WTP 1, water is pumped from the well through a check valve and 2-inch Sensus flow meter before flowing into a 2,000-gallon steel hydropneumatic storage tank and then out to the distribution system. The well pump turns on when pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the storage tank. There is no bypass line available for the water to bypass the storage tank if needed. WTP 1 has an additional 800-gallon storage tank onsite but it has been taken out of service and the connections to the system have been removed.

At WTP 2, water is pumped from the well through a 1.5-inch check valve before flowing into a 2,000-gallon steel hydropneumatic tank. Water flows out of the storage tank through a 1.5-inch Sensus flow meter and then out to distribution. During the inspection, a welding company was onsite patching the storage tank due to leaks, and a temporary storage tank was brought onsite and has been in use for the past few months. Both storage tanks were off due to repair work. The well pump turns on when pressure in the tank is at 45 psi and turns off at 65 psi. Chlorine is injected for disinfection prior to entering the storage tank. There is a 1.5-inch bypass line for the tank that is normally closed.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	WTP 1 Well 1	430 feet deep, 56 GPM	2004 (Sanitary Survey Report)	Poor
Source	WTP 2 Well 1	390 feet deep, 60 GPM	1985 (Sanitary Survey Report)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	WTP 1 Hydropneumatic Tank	2,000 gallons, Steel	Approx. 2003 (Tank Inspection Report)	Fair
Storage	WTP 2 Hydropneumatic Tank	2,000 gallons, Steel	Approx. 1997 (Tank Inspection Report)	Poor
Building	WTP 2 Pump Station Building	8 by 14 feet Aluminum building	Unknown	Fair

2.1.1 Source

2.1.1.1 WTP 1 Source

WTP 1 has one well that is located within the locked fenced in area. The top of the well casing is 17 inches above grade and within a concrete pad. The well is 390-feet deep with a submersible Sta-Rite 60 GPM pump with a 3 HP motor. The well has a sample tap off the top of the well but it has no vent. There is a 2-inch Sensus meter after the well. Well 1 is shown in Figure 2-1.

Figure 2-1: WTP 1 Well

2.1.1.2 WTP 2 Source

WTP 2 has one well that is located within the locked fenced in area, shown in Figure 2-2. The top of the well casing is 8 inches above grade and within a concrete pad. The well is not the required height of at least 12 inches, however FDEP typically accepts the lower height provided there is no evidence of microbial contamination. The well is 430 feet deep with a submersible Sta-rite 56 GPM pump with a 5 HP motor. The well has a screened vent and a sample tap. The well casing was not completely sealed with missing bolts and a loose conduit connection, and has rust and corrosion beginning to form on the casing, shown in Figure 2-3. The pressure switch controlling the well pump did not have a cover.

Figure 2-2: WTP 2 Well

There are no potential sources of contamination within 1000 feet of either of the wells at the water treatment plant. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank for both WTPs. The chlorine strength is 10.5% and mix for both sites is unknown. At WTP 1, the chlorine is stored in a 55-gallon storage tank and mixed in a 55-gallon tank and uses a 7 GPD Chem-Tech diaphragm pump set at 100% stroke. At WTP 2, the chlorine is stored in a 55-gallon tank and mixed in a 30-gallon storage tank and uses a 3 GPD Stenner peristaltic pump. The average chlorine residual in 2019 was 0.6 mg/L. The chemical metering pumps at the facilities are shown in Table 2-2. The treatment at each site is shown in Figure 2-4 and Figure 2-5.

The chlorine pumps will turn on when the well pumps are energized. Each chemical pump outlet is wired to the well pump stater.

Table 2-2: Ponderosa Pines Chemical Metering Pumps

Chemical Pump	Chlorine (WTP 1)	Chlorine (WTP 2)
Number of Pumps	1	1
Brand	Chem-Tech	Stenner
Model	X007-XA-AAAAXXX	45MHP2
Size	7 GPD	3 GPD

Figure 2-3: WTP 1 Chlorine Treatment

Figure 2-4: WTP 2 Chlorine Treatment

2.1.3 Storage

2.1.3.1 WTP 1 Storage

WTP 1 has a 2,000-gallon hydropneumatic storage tank on-site. The tank is plumbed with 2-inch isolation gate valves at the inlet and outlet of the tank with no bypass line, and a tank drain located underneath the tank. The operation set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, and the pressure recorded during the site inspection was 50 psi. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed. In addition to the 2,000-gallon tank, there is a decommissioned 800-gallon tank onsite and all connections to the tank were removed.

The most recent inspection on the WTP 1 storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the tank exterior appeared to be in good structural condition and the tank interior appeared to be in fair condition. The report stated that there were significant areas with no coating present on the interior tank surface and there was corrosion noted on the floor and side walls. Please refer to Appendix B for the 2018 Tank Inspection Report.

Figure 2-5: WTP 1 Storage Tank

2.1.3.2 WTP 2 Storage

WTP 2 has a 2,000-gallon hydropneumatic storage tank on-site, shown in Figure 2-6. The tank is plumbed with 2-inch isolation gate valves at the inlet and outlet of the tank with a 2-inch bypass line that is normally closed, and a tank drain located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed. The tank was out of service at the time of inspection because a welding crew was adding a patch on the tank to repair a leak.

The most recent inspection on the WTP 2 storage tank was performed by Enviro-Tech, Inc. in April 2019 and stated that the tank exterior appeared to be in poor condition with a pinhole leak noted and the tank interior appeared to be in fair condition. The report stated that the tank interior appeared to have significant areas with no coating present and corrosion noted on the floor and side walls of the tank interior. Please refer to Appendix B for the 2018 Tank Inspection Report.

After the tank there is a 1.5-inch Sensus meter distribution meter. The meter is shown in Figure 2-7.

Figure 2-6: WTP 2 Storage Tank

Figure 2-7: WTP 2 Meter

2.1.4 Pump Station Building

Ponderosa WTP 1 has an 8-foot by 4-foot aluminum building that is not used. The building has a single door that opens out with a width of 44 inches. The building had no evidence of roof leaks or rodents, but the building has holes in the aluminum siding and provides no protection from rodents and insects. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site.

Ponderosa WTP 1 does not have a pump station building onsite. The site is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite.

Figure 2-8: WTP 1 Pump Station Building

2.1.5 Back-Up Power

There is no emergency generator onsite or quick-connect for a portable generator at either of the Ponderosa Pines sites. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at each site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

Per Florida Administrative Code 62-555.320 (14) (a), this system should be required to have back up power since it services over 350 people and has over 150 connections. In the sanitary survey, the two WTP are noted to be on separate electrical grids and were not given any deficiencies.

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey was conducted on March 13, 2020 and the report stated that no deficiencies were noted at the time of inspection. Please refer to Appendix E for the most recent Sanitary Survey Report. According to the Florida Department of Environmental Protection's database, both Ponderosa Pines plants have received no violations within the last 10 years.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at either site, and floodlights should be installed to allow the sites to be safely accessed at night.

WTP 1 has an aluminum building that is not used. The building had no evidence of roof leaks or rodents, but the building has holes in the aluminum siding and provides no protection from rodents and insects. WTP 2 has no buildings

or structures in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to upgrade or replace the building at WTP 1 and construct a building onsite at WTP 2 to protect sensitive equipment from weather and tampering.

Given the isolated location of the stations, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended that a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Source of Supply

The well at WTP 1 should have a screened vent installed. The wires to the well pump should be sealed in a conduit, and were exposed going into the starter box, shown in Figure 2-9.

Figure 2-9: WTP 1 Well Pump Exposed Wires

The casings for the well at WTP 2 was not completely sealed with missing bolts and exposed pump wires. These are potential routes of microbial contamination and should be sealed, which is also required under Florida Administrative Code 64-E.8005(2)(g). The pressure switch was missing a cover, and the cover should be replaced.

Figure 2-10: WTP 2 Well Condition

WTP 2 has a 1.5-inch Sensus meter that will have to be replaced with a meter that have a 4-20 mA connection so that they can report flow to the Mission Monitoring system. WTP 1 has a 2-inch Sensus meter that looks to be compatible.

2.3.3 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The most recent storage tank inspection for WTP 1 noted the exterior of the tank to be in good condition, and the interior to be in fair condition, with significant areas with no coating present. The tank is over fifteen years old, and interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

The storage tank inspection for WTP 2 noted the exterior of the tank to be in poor condition with a pinhole leak noted. At the time of the site visit, the storage tank was drained, and a large patch was being installed by a welder. The interior was noted to be in fair condition, with significant areas with no coating present. The tank is over fifteen years old, and interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion, as noted in the Tank Inspection Report .

There are chemicals stored onsite have no secondary containment to protect against accidental release into the environment. At both plants there is a 55-gallon tank for storing chlorine and a 55-gallon or 30-gallon tank for chlorine mixing. The tanks should be stored on a pallet that can contain the total volume of the chemicals. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005.

To install secondary containment for the chemical storage, a structure will have to be installed to protect the secondary containment from filling with rainwater. In addition, a structure around the chemical drums will offer an added protection from damage. This can be accomplished by changing out all the tanks with a smaller 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG Roll Top Hardcover Spill Pallet, with a 66-gallon containment capacity. An example is shown in Figure 2-11.

Figure 2-11: PIG Roll Top Hardcover Spill Pallet

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1985 and supplies water using a 2-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed located at most roadway intersections. No blow-off valves are noted on the water distribution map. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Ponderosa Pines to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Ponderosa Pines is: **$55,000**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$2,000
Upgrade Electrical	$30,000
Mission Monitoring at Well	$20,000
Total	$52,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$3,400
Total	$3,400

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Ponderosa Pines to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-6. The total cost estimate for Capital Improvements at Ponderosa Pines is: **$152,000.**

Table 4-3: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$18,000
Transmitters and Other Monitoring Equipment	$5,000
Replace Distribution Meter (WTP 2)	$3,500
Interior Tank Coating	$10,000
Total	$36,500

Table 4-4: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter (WTP 1)	$3,500
Total	$3,500

Table 4-5: Water Distribution System Capital Improvements

Recommendation	Estimate
Install Blowoff Valve (WTP 1)	$8,000
Automatic Flushing Units	$54,000
Total	$62,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$50,000
Total	$50,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

PONDEROSA PINES (2 WPS)
CNR SE 185 TERR & SE 20TH PL
SILVER SPRINGS, FL 34488

Public Water System ID: 3424062

Previously Known As:
PONDEROSA PINES (PKA COM. WATER COOP)
PONDEROSA PINES

County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: MOBILE HOME PARK
Population Served: 465
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
34298	WELL #3	AAH2701	ACTIVE	430	Floridan Aquifer
5810	BACKUP 4" 375'/400' 60GPM SUBM	AAG9611	ACTIVE	390	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

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Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

Ponderosa Pines No. 1 Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Ponderosa Pines No. 1 Subdivision
Street Address:	Corner of Southeast 20th Place/185th Terr.
City, State:	Marion County, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424062
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 13, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
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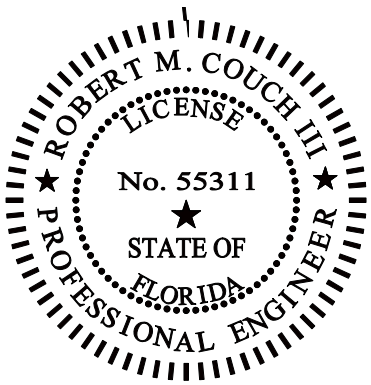

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 13, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 4.70 millimeters. UTM readings from the tank heads indicated an average thickness of 6.21 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. The interior coating of the tank appeared to be in fair condition. However, there was no coating on significant areas of the tank interior and corrosion was noted on the tank floor and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 20'-1" (21'-6" including elliptical heads)
Diameter: 4'-0" outside diameter
Volume: 2,000 gallons with elliptical heads
Tank Age: Approximately 15 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had failed.

6.3 Ultrasonic Metal Thickness Testing

A total of 52 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 4.7 millimeters in the cylindrical section and 6.21 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/16" (4.76 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition.

7.2 Tank Interior

The tank interior appeared to be in fair condition, however, there were significant areas with no coating present on the interior tank surface. There was corrosion noted on the floor and side walls of the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 4.70 mm / (605 mm+0.6 x 4.70 mm)
= 0.464 MPa
= 67 psi

When:

t < 0.5R = 0.5 x 605 = 302.45 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 4.70 mm
R = inside radius of shell course under consideration (mm) = 605 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Ponderosa Pines No. 1 subdivision 2,000-gallon hydropneumatic pressure tank was performed on December 13, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was only partial interior coating present.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

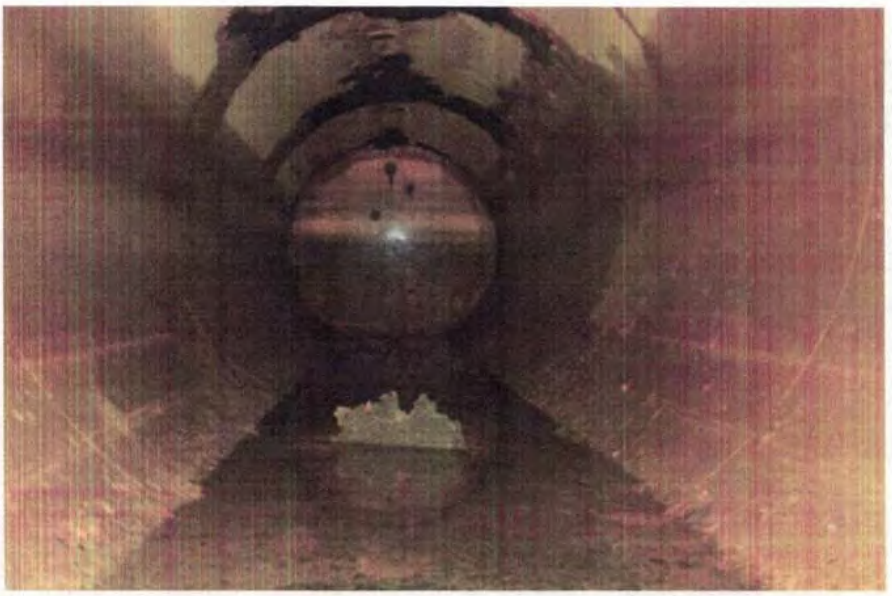
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/27/2019

Robert M. Couch III, P.E. Registration No. 55311

Typical exterior and interior views of tank



INSPECTION AND TESTING of HYDROPNEUMATIC TANK

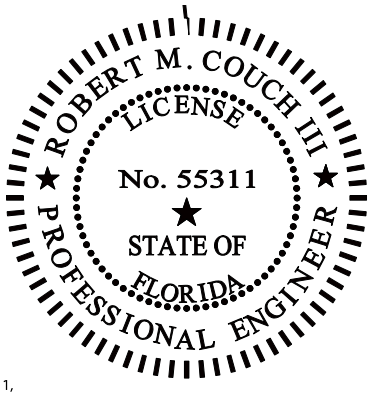
Ponderosa Pines No. 2 Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Ponderosa Pines No. 2 Subdivision
Street Address:	On Southeast 21st Lane off of 185th Terrace
City, State:	Marion County, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424062
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 13, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



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The tank shell and heads appeared to be in overall fair structural condition. A pinhole was noted in the tank shell. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 4.69 millimeters. UTM readings from the tank heads indicated an average thickness of 8.19 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. There was no coating on significant areas of the tank interior and corrosion was noted on the tank floor and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

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4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 11'-11" (13'-3" including elliptical heads)
Diameter: 5'-3" outside diameter
Volume: 2,000 gallons with elliptical heads
Tank Age: Approximately 21 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection. However, a pinhole was observed on the surface of the tank.

6.2 Interior Coating Testing

Dry film thickness readings were not taken as coating was missing from significant portions of the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 57 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 4.686 millimeters in the cylindrical section and 8.19 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in poor structural condition. A pin hole was noted on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in fair condition. There were significant areas with no coating present on the interior tank surface. There was corrosion noted on the floor and side walls of the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 4.69 mm / (795 mm+0.6 x 4.69 mm)
= 0.352 MPa
= 51 psi

When:

t < 0.5R = 0.5 x 795 = 397.71 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 4.69 mm
R = inside radius of shell course under consideration (mm) = 795 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Ponderosa Pines No. 2 subdivision 2,000-gallon hydropneumatic pressure tank was performed on December 13, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was only partial interior coating present.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 60 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

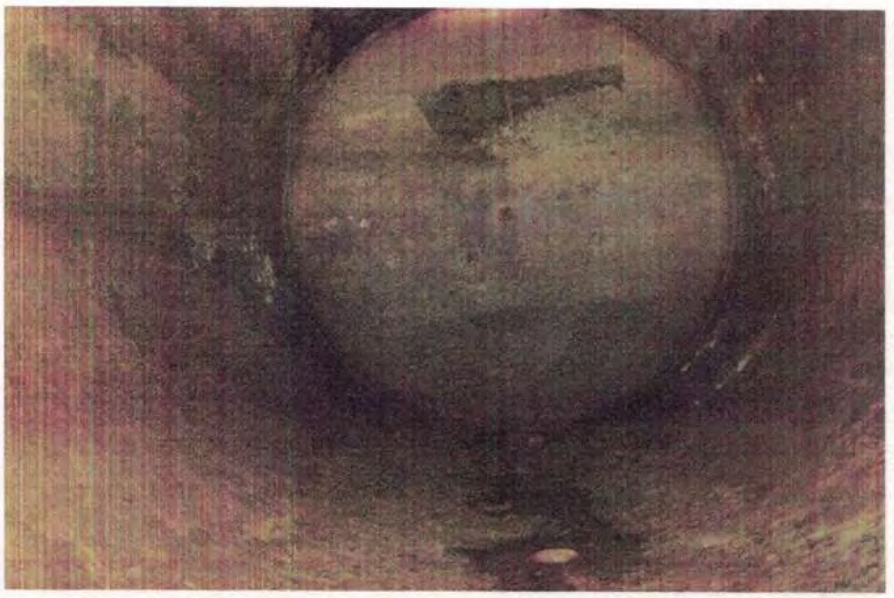
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 51 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/27/2019

Robert M. Couch III, P.E. Registration No. 55311

Typical exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

Ponderosa Pines

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	179
PWS:	3424062
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	Clay Electric	352-473-8000		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(2) 4" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 335 and 390 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	28900 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3420939**	
System name and address	**Ponderosa Pines**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**(1) 18536 SE 21st Ln** **(2) Corner of SE 20th Pl and SE 185th Terr**	
Population served and service connections.	Population =	Connections = 179
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	28900 GPD
Maximum Daily Demand (gpd)	37400 GPD
System Capacity (gpd)	83570 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	18536 SE 21st Ln	SE 185th Terr		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	390 FT	335 FT		
Well Yield (gpd)	86,400GPD	80,640 GPD		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta-Rite		
Capacity (gpm)	60 GPM	56 GPM		
Motor Manufacturer	Franklin	Franklin		
Horsepower	3 HP	3		
Phase	1	1		
Volts/Amps	230 volts	230 Volts		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Ponderosa Pines Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424062 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ■ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ■ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019 and ending December 31, 2019*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Ponderosa Pines

Florida Department of Environmental Protection Public Water System ID # 3424062

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes, and we use an additive for corrosion control. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well(s). The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have no potential sources of contamination. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR PONDEROSA PINES

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAY '18	No	0.11	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAY '18	No	0.009	0.0076 - 0.009	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	MAY '18	No	0.12	0.11 - 0.12	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Sodium	(ppm)	MAY '18	No	9.8	9.5 - 9.8	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.6	0.4 - 1.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	SEP '18	No	8.47	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	SEP '18	No	18.28	N/A	N/A	MCL = 80	

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	AUG '18	No	0.795	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	AUG '18	No	1.9	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019PonderosaPines.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 2, 2020

Dewaine Christmas, Owner
Sunshine Utilities of Central Florida Inc.
10230 E Highway 25
Belleview, FL 34420
sunshineutl@aol.com

Re: Ponderosa Pines (2WPS)
PW Facility ID #3424062
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on March 13, 2020. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Amada Fernandez at 407-897-4159 or via e-mail at Amada.M.Fernandez@FloridaDEP.gov.

Sincerely,

Jill Farris, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

cc: Amada Fernandez and Jill Farris, FDEP
Universal Waters, universalwaters94@yahoo.com

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **PONDEROSA PINES (2 WPS)** County Marion PWS ID # **3424062-1**
Plant Location SE 185th Terrace and SE 20th Place, Silver Springs, FL 34488 Phone 352-347-8228
Owner Name: Sunshine Utilities of Central FL, Inc.; Attn: Dewaine Christmas Phone 352-347-8228
Owner Address 10230 E Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 3/13/20 Last Survey Date 2/27/17 Last Compliance Inspection Date 6/26/01

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 40,320 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Mobile home park
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 186
Population Served 465 Basis Owner

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit* *Actual* Visit*
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments *Visits must add up to 0.3 hours per week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 34,040 gpd
Maximum Day (from MORs) 77,600 gpd 06/2019
Comments Max-day design capacity exceedances in 5,6,7,9,10&12/19. Email 3/24 indicated pressure settings will be adjusted to increase usage on WTP#2.

Flow Measuring Device Flow Meter
Meter Size & Type 2" Sensus
Date Last Calibrated 12/4/18

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☒ Emergency Water Source 3424062-2
Emergency Water Capacity 43,200

STANDBY POWER SOURCE: No
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☒No
Comments WTP #2 is on a separate power grid.

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M
Operation & Maintenance Manual ☒ Yes ☐ No
Preventive Maintenance Program ☒ Yes ☐ No

Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3424062-1
Date 3/13/20

GROUND WATER SOURCE

Well Number		3 (AAH2701)		
Year Drilled		2004		
Depth Drilled		430’		
Drilling Method		Neat cement		
Type of Grout		19.4’		
Static Water Level		Unknown		
Pumping Water Level		Unknown		
Design Well Yield		Unknown		
Test Yield		Unknown		
Actual Yield (if different than rated capacity)		Unknown		
Strainer		Unknown		
Length (outside casing)		288’		
Diameter (outside casing)		8’’		
Material (outside casing)		Steel		
Well Contamination History		None		
Is inundation of well possible?		No		
6’ X 6’ X 4” Concrete Pad		Yes		
SET BACKS	Septic Tank	>100'		
	Reuse Water	N/A		
	WW Plumbing	>100'		
	Other Sanitary Hazard	None observed		
PUMP	Type	Submersible		
	Manufacturer Name	Sta-rite		
	Model Number	L50P4HH		
	Rated Capacity (gpm)	56		
	Motor Horsepower	3.0		
Well casing 12” above grade?		Yes		
Well Casing Sanitary Seal		OK		
Raw Water Sampling Tap		Yes		
Above Ground Check Valve		Yes		
Fence/Housing		Yes		
Well Vent Protection		Yes		

COMMENTS:

PWS ID # 3424062-1
Date 3/13/20

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 7 gpd
Chlorine Feed Rate 100% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.24 Remote 0.42
Remote tap location 18311 SE 18th St.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms:			
Loss of Cl_2 capability	☐	☐	
Loss of Cl_2 residual	☐	☐	
Cl_2 leak detection	☐	☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Bloodworm Presence
Visible Algae Growth
Protective Screen Condition
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H1
Capacity (gal)	2,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	48/68
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	On tank
Date of Inspection	12/18
Date of Cleaning	12/18

Comments

HIGH SERVICE PUMPS

Pump Number			
Type			
Make			
Model			
Capacity (gpm)			
Motor HP			
Date Installed			
Maintenance			

Comments

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **PONDEROSA PINES-2** County Marion PWS ID # **3424062-2**
Plant Location SE 20th Place and SE 21 Lane, Silver Springs, FL 34488 Phone 352-347-8228
Owner Name: Sunshine Utilities of Central FL Inc.; Attn: Dewaine Christmas Phone 352-347-8228
Owner Address 10230 E County Road 25, Belleview, FL 34420
Contact Person Dewaine Christmas Title Manager Phone 352-347-8228
This Survey Date 3/13/20 Last Survey Date 2/27/17 Last C.I. Date 6/26/01

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 43,200 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination, Iron removal/sequestration (Aqua-Mag)

SERVICE AREA CHARACTERISTICS
Mobile home park
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 186
Population Served 456 Basis Owner

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit* *Actual* Visit*
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments *Visit must total 0.3 hours per week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 2,362 gpd
Maximum Day (from MORs) 15,000 gpd 03/2019
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Sensus
Date Last Calibrated 12/4/18

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☒ Emergency Water Source 3424062-1
Emergency Water Capacity 40,320 gpd

STANDBY POWER SOURCE: No
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments WTP #1 is on a separate power grid.

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M
Operation & Maintenance Manual ☒ Yes ☐ No
Preventive Maintenance Program ☒ Yes ☐ No

Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments:

PWS ID # 3424062-2
Date 3/13/20

GROUND WATER SOURCE

Well Number		1(AAG9611)	
Year Drilled		1985	
Depth Drilled		390’	
Drilling Method		Unknown	
Type of Grout		Unknown	
Static Water Level		Unknown	
Pumping Water Level		Unknown	
Design Well Yield		Unknown	
Test Yield		Unknown	
Actual Yield (if different than rated capacity)		Unknown	
Strainer		Unknown	
Length (outside casing)		375’	
Diameter (outside casing)		4”	
Material (outside casing)		Steel	
Well Contamination History		None	
Is inundation of well possible?		No	
6’ X 6’ X 4” Concrete Pad		Yes	
SET BACKS	Septic Tank	>100’	
	Reuse Water	N/A	
	WW Plumbing	>100’	
	Other Sanitary Hazard	None observed	
PUMP	Type	Submersible	
	Manufacturer Name	Sta-Rite	
	Model Number	Unknown	
	Rated Capacity (gpm)	60	
	Motor Horsepower	3	
Well casing 12” above grade?		Yes	
Well Casing Sanitary Seal		OK	
Raw Water Sampling Tap		Yes	
Above Ground Check Valve		Yes	
Fence/Housing		Yes	
Well Vent Protection		N/A	

COMMENTS WTP #2 is offline due to maintenance.

PWS ID # 3424062-2
Date 3/13/20
Date 9/4/08

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make (2) Chem-Tech Capacity 30 gpd
Chlorine Feed Rate *N/A
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant *N/A Remote *N/A
Remote tap location *N/A
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points N/A
Booster Pump Info N/A
Comments *Plant offline.

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type _____ Capacity _____
Aerator Condition _____
Bloodworm Presence _____
Visible Algae Growth _____
Protective Screen Condition _____
Comments _____

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H3
Capacity (gal)	2,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	48/68
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	On tank
Date of Inspection	12/18
Date of Cleaning	12/18

Comments _____

HIGH SERVICE PUMPS

Pump Number			
Type			
Make			
Model			
Capacity (gpm)			
Motor HP			
Date Installed			
Maintenance			

Comments _____

DEFICIENCIES:

No deficiencies noted at the time of the inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2020 results have not been received. Early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2020, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2020.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350

- or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

amada fernandez
Inspector Signature

Amada Fernandez
Printed Name

Environmental Specialist II
Title

3/24/20
Date

Reviewer Signature

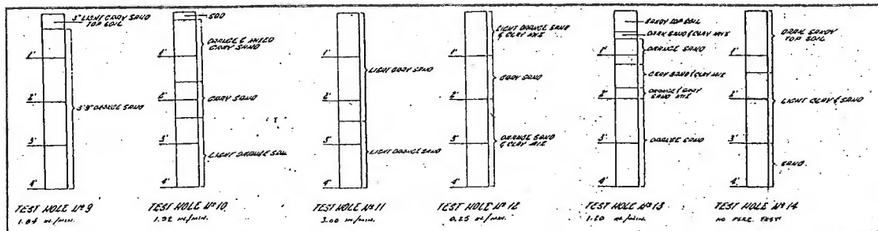
Jill M. Farris
Printed Name

Environmental Manager
Title

4/2/20
Date

APPENDIX F: DISTRIBUTION MAP

PROJECT NUMBER	SHEET NUMBER
FY 90/91-30,300-C	3 OF [illegible]



Water Main
Service Crossing
Main Crossing
Main Changes

NOTES:

1. Total area of right-of-way being improved by this project equals 16.88 acres.
2. This project was previously permitted by S.J.R.W.M.D. Permit No. 42-083-0478NG issued October 1, 1991.
3. These roadway improvements qualify for a S.J.R.W.M.D. General Permit under 40C-42.024(2)(d) (Paving of Existing Public Dirt Roads By a Public Entity).
4. During the construction period, a siltation barrier shall be provided at any and all discharge points.
5. Erosion and sedimentation control shall be installed and maintained during earth disturbing activities and until earth cover has been established.
6. No work is to be conducted within the limits of the existing man-made canals except as noted or shown.
7. No construction is to occur within the Waters of the State.
8. Landward extent of Surface Waters of the State is the top of bank of the existing man-made canals.

LEGEND

BASIN BOUNDARY

100 YR. FLOOD LINE
AS PER FEMA ZONE A-1 ELEV. 55.00
120-160-0540B JAN. 19, 1983

Address Pink
Acc # Yellow

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	

	NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY		
CHECKED BY			CHECKED BY		
SUPERVISED BY:					

MARION COUNTY DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS ENGINEERING DIVISION

APPROVED BY _____ DATE _____

HORIZONTAL SCALE: 1" = 100 ft
VERTICAL SCALE:
CADD NAME: DRAINMAP

DRAINAGE MAP

NOTES:

1. Total area of right-of-way being improved by this project equals 16.88 acres.
2. This project was previously permitted by S.J.R.W.M.D. Permit No. 42-083-0478NG issued October 1, 1991.
3. These roadway improvements qualify for a S.J.R.W.M.D. General Permit under 40C-42.024(2)(d) (Paving of Existing Public Dirt Roads By a Public Entity).
4. During the construction period, a siltation barrier shall be provided at any and all discharge points.
5. Erosion and sedimentation control shall be installed and maintained during earth disturbing activities and until earth cover has been established.
6. No work is to be conducted within the limits of the existing man-made canals except as noted or shown.
7. No construction is to occur within the Waters of the State.
8. Landward extent of Surface Waters of the State is the top of bank of the existing man-made canals.

LEGEND

BASIN BOUNDARY

100 YR. FLOOD LINE
AS PER FEMA ZONE A-1 ELEV. 55.00
120-160-0540B JAN. 19, 1983

Ponderosa

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY		
CHECKED BY			CHECKED BY		
SUPERVISED BY:					

MARION COUNTY DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS ENGINEERING DIVISION

APPROVED BY _____ DATE: _____

HORIZONTAL SCALE: 1" = 100 ft.
VERTICAL SCALE:
CADD NAME: DRAINMAP

DRAINAGE MAP

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Quail Run
Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Quail Run Subdivision. A summary of the main parameters for the water system are summarized below in Table 1-1.

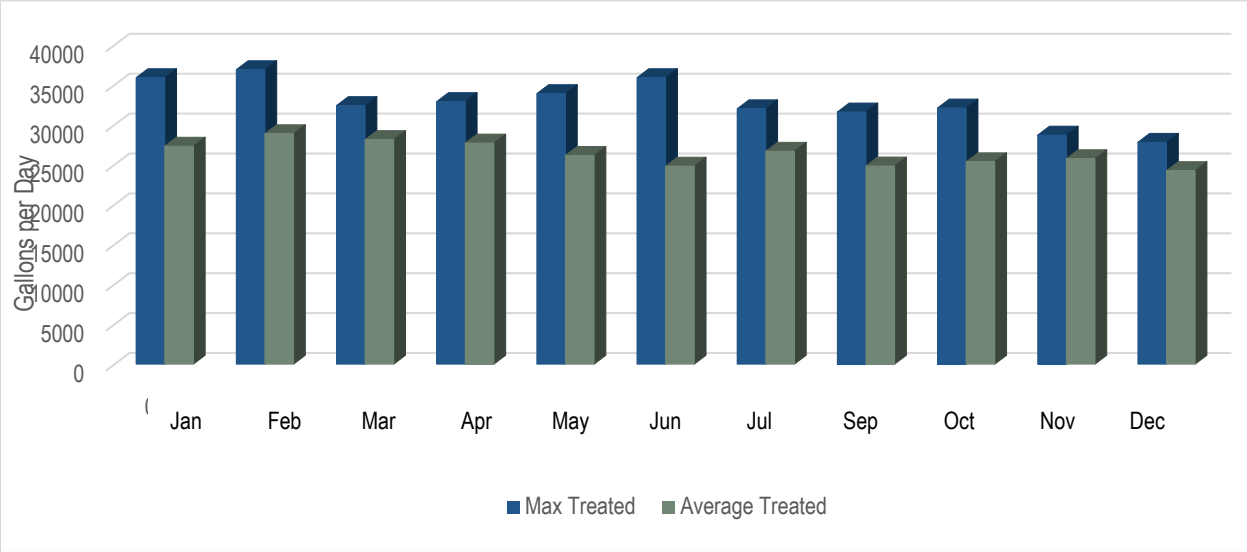
Table 1-1: Quail Run Subdivision System Information

Water System Name	Quail Run Subdivision
PWD ID Number	3424046
Classification	Transient Non-Community
Plant Category & Class	5C
Street Address	1878 SW 107th PL
City, State	Belleview, Florida
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	230 (Sanitary Survey)
Number of Service Connections	92 (Sanitary Survey)
Pending Developments	None (Sunshine Utility)
Average Day Water Use	25,020 GPD (2019 Monthly Reporting)
Maximum Day Water Use	36,900 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	260,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Quail Run community is depicted in Figure 1-1.

Figure 1-1: Quail Run Subdivision Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 though a 2-inch meter and a check valve before going into the 3,000-gallon steel hydropneumatic tank. The well turns on when the pressure in the tank is at 45 psi and turns off a 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	Unknown depth, 360 GPM	1980 (Sanitary Survey)	Fair
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	3,000 gallons, Steel	2014 (Tank Plate)	Good

2.1.1 Source

The Quail Run well is located near the tank within a locked fenced in area and is about 25 feet from SW 107th PL. The top of the well casing is 12 inches above grade and within a concrete pad. The well uses one submersible Sta-Rite 360 GPM pump with a 30 HP motor at 230 Volts. The water is pumped from the well through a 2-inch Master meter and a check valve. The well has a sample tap off the top but has no vent. The well is shown in Figure 2-1.

There are no potential sources of contamination within 1000 feet of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is unknown and there is a 50-gallon drum for storing chlorine and a 30-gallon drum for chlorine mixing stored in a small plastic shed. The chemical pump is a diaphragm 12 GPD Uni-Dose Pump, set at 60% stroke. The chemical metering pump at the facility is shown in Table 2-2. The average distribution residual in 2019 was 0.7 mg/L.

The chlorine pump will turn on when the pump is energized. The chemical pump outlet is wired to the well pump starter.

Table 2-2: Quail Run Chemical Metering Pumps

Chemical Pump	Chlorine (Well 1)
Number of Pumps	1
Brand	Uni-dose
Model	U021-281TT
Size	12 GPD

Figure 2-2: Chlorine Treatment Tank

2.1.3 Storage

The Quail Run water treatment plant has a 3,000-gallon hydropneumatic storage tank on-site, shown in Figure 2-3. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The storage tank was installed in 2014. The storage tank was last inspected by Enviro-Tech, Inc. on November 24, 2020. The tank inspection report stated that the tank interior and exterior appeared to be in good condition with some areas on the interior of the tank where coating had begun to fail, and corrosion was beginning to form. Refer to Appendix B for the Tank Inspection Report.

Figure 2-3: Storage Tank

2.1.4 Pump Station Building

There is no pump station building onsite. The plant is located is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, or PPE available on-site. There is lighting on site. The site layout is shown in Figure 2-4.

Figure 2-4: Pump Station

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on November 19, 2020 and stated that no deficiencies were noted during the inspection. Please refer to Appendix E for the Sanitary Survey Report. The plant has received three violations within the past 10 years. Two of the violations were for monitoring and reporting of stage 2 disinfectants and disinfection byproducts on November 8, 2018, which the plant returned to compliance on November 26, 2018. The plant violated the total coliform rule by exceeding the maximum contaminant level on November 14, 2014 and returned to compliance on November 16, 2014.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Source of Supply

There is no vent on the well, and it is not clear how the hydropneumatic tank is balanced. If the hydropneumatic tank becomes waterlogged a vent should be installed on the well drop pipe.

The system has a 2-inch source meter prior to the tank which will have to be replaced with a meter that has a 4-20 mA connection so that it can report flow back to the Mission Monitoring system.

2.3.3 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there is a 50-gallon tank for storing chlorine and a 30-gallon tank for mixing chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005.

To install secondary containment for the chemical storage, a structure will have to be installed to protect the secondary containment from filling with rainwater. In addition, a structure around the chemical drums will offer an added protection from damage. This can be accomplished by changing out all the tanks with a smaller 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG Roll Top Hardcover Spill Pallet, with a 66-gallon containment capacity. An example is shown in Figure 2-5.

Figure 2-5: PIG Roll Top Hardcover Spill Pallet

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in the 1978 and supplies water to ten blocks using 2 to 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes, and each home as its own aboveground meter located in the right of way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution map does not show any blowoff valves in the system. A blowoff valve should be installed on the 4-inch stub on the south end of S.W. 18th Terrace. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Quail Run to normal operating conditions are summarized with cost estimates in Tables 4-1 and 4-2. The total cost estimate for Triage Repairs at Quail Run is: **$16,700**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Upgrade Electrical	$5,000
Mission Monitoring at Well	$10,000
Total	$15,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Total	$1,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Quail Run to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-7. The total cost estimate for Capital Improvements at Quail Run is: **$69,000**.

Table 4-3: Source of Supply Capital Improvements

Recommendation	Estimate
Replace 2-Inch Source Meter	$3,500
Total	$3,500

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$11,500

Table 4-6: Water Distribution System Capital Improvements

Recommendation	Estimate
Install Blowoff Valve	$2,000
Automatic Flushing Unit	$27,000
Total	$29,000

Table 4-7: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

QUAIL RUN SUBDIVISION
SW 108 LN & 18 TERR.
OCALA, FL 32671

Public Water System ID: 3424046
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 230
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5806	8"/200'/40'	AAG9894	ACTIVE	Not Available	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Disclaimer
Exit Disclaimer
Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

Quail Run Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Quail Run
Street Address:	1784 SW 108th Lane
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424046
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	November 24, 2020

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
cn=Robert M. Couch III, P.E., ou= President, o= ENVIRO-TECH, Inc., l= Weirsdale, st= Florida, c= US, email= envirotech@ymail.com
Date: 2020.11.30 11:08:18 EST

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on November 24, 2020 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 7.79 millimeters. UTM readings from the tank heads indicated an average thickness of 9.38 millimeters. The exterior coating of the tank appeared to be in overall good condition with no surface corrosion. The interior coating of the tank appeared to be in good condition with minor surface corrosion starting on the fittings attached to the tank walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected at the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the average working pressure does not exceed 50 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0 mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125 mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

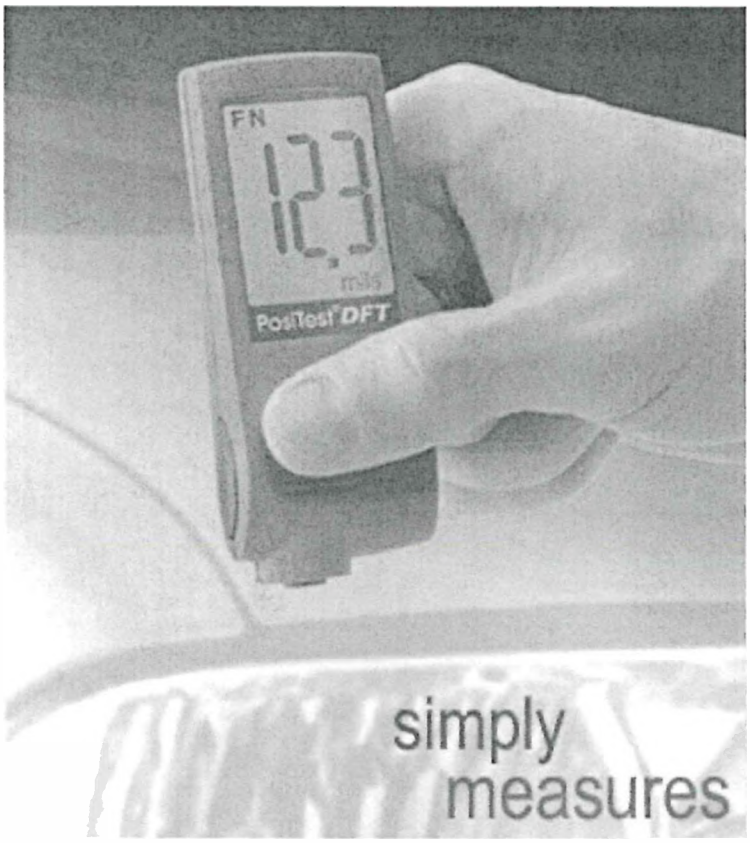
4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100μA
Operating Temperature	-20 to +50°C
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge



The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

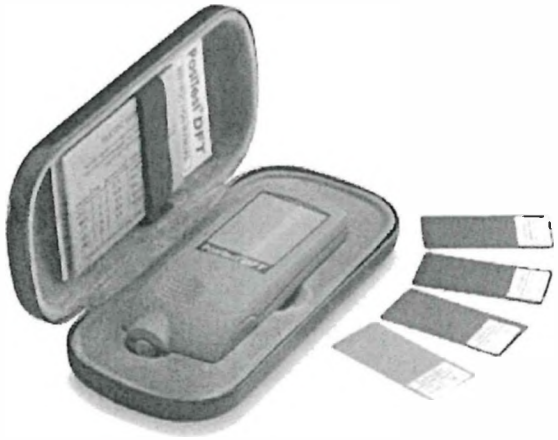
ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)



5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 14'-0" (17'-0" including elliptical heads)
Diameter: 5'-0" outside diameter
Volume: 2,400 gallons with elliptical heads
Tank Age: 2014
Operating Pressure: 40-60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along fittings inside the tank walls..

6.3 Ultrasonic Metal Thickness Testing

A total of 47 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 7.79 millimeters in the cylindrical section and 9.38 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.3 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition.

7.2 Tank Interior

The tank interior appeared to be in good condition. There were areas around the tank fittings where the coating had begun to fail and corrosion had formed on the interior tank surface.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250°F).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 7.79 mm / (754 mm+0.6 x 7.79 mm)
= 0.616 MPa
= 89 psi

When:

t < 0.5R = 0.5 x 754 = 377.11 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 7.79 mm
R = inside radius of shell course under consideration (mm) = 754 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Quail Run 2,400-gallon hydropneumatic pressure tank was performed on November 24, 2020. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already begun to fail.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion on the fittings of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

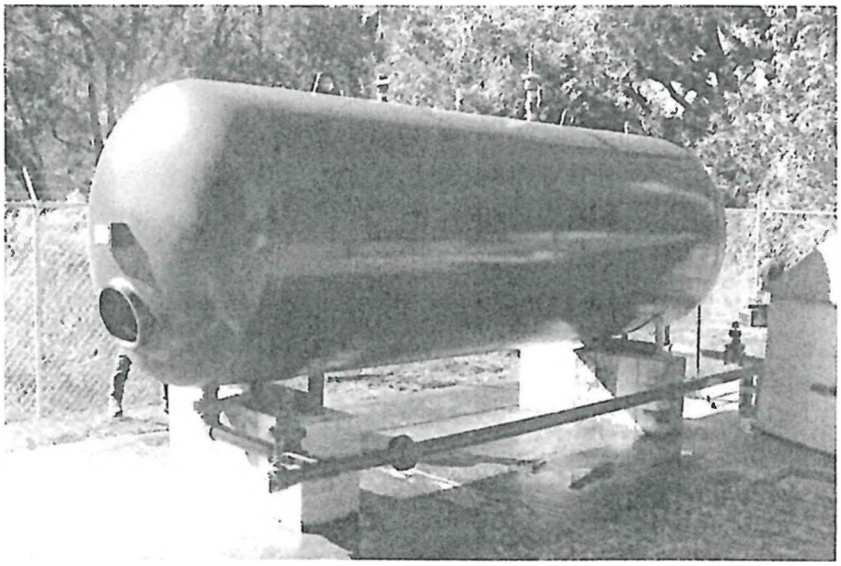
- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.
- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.
- The tank interior should be cleaned and reinspected at the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

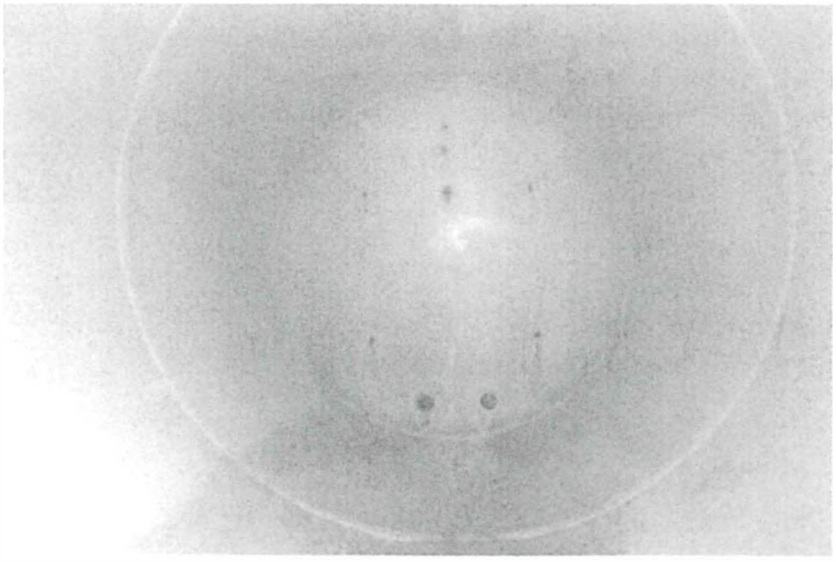
Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the average working pressure does not exceed 50 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 11/29/2020

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank





APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

QUAIL RUN

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	103
PWS:	3424046
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

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2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List

Organization or Department	Name & Position	Telephone	Cell Phone	e-mail
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	SECO	(352)237-4107		
Electrician	Melville Electric	(352)245-0600		
Gas / Propane Supplier	Belleview Gas	(352)245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	(352)355-2383		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	Allen Curry Plumbing	352-629-7886		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, Austin 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 8" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because they are less than 200 ft deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	27403 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424046**	
System name and address	**QUAIL RUN**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**SW 108TH LN**	
Population served and service connections.	Population =	Connections =257
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	27403 GPD
Maximum Daily Demand (gpd)	33600 GPD
System Capacity (gpd)	260000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	SW 108TH LN			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	N/A FT			
Well Yield (gpd)	128160 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	89 GPM			
Motor Manufacturer	Franklin			
Horsepower	5 HP			
Phase	3			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Quail Run Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424046 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1,*** 2019 ***, and ending December 31,*** 2019, to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012- 0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Quail Run Subdivision

Florida Department of Environmental Protection Public Water System ID # 3424046

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have "No Potential Sources of Contamination". You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR QUAIL RUN

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228	(pCi/L)	FEB '18	No	1.5	N/A	0	50	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	FEB '18	No	0.5	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	FEB '18	No	0.0047	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	FEB '18	No	1.1	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	FEB '18	No	0.16	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC19	No	1.81	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	FEB '18	No	4.9	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.7	0.5 - 1.0	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.15	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	jUL '18	No	13.2	1	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there Is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations for water quality. We are very pleased to report that our water met all federal and state requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019QuailRun.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

December 11, 2020

Dewaine Christmas, Owner
Sunshine Utilities of Central Florida Inc
10230 SW Hwy 25
Belleview, FL 34420
sunshineutl@aol.com

Re: Quail Run Subdivision
PW Facility ID #3424046
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection and file review of the above-referenced facility on November 19, 2020. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection is attached for your records.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Miranda Rothenberger at 407-897-4301 or via e-mail at Miranda.Rothenberger@FloridaDEP.gov.

Sincerely,

Daniel K. Hall, Manager
Central District
Florida Department of Environmental Protection

Enclosure: November 19, 2020 Inspection Report

cc: Miranda Rothenberger, FDEP

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **Quail Run Subdivision** County Sumter PWS ID # **3424046**
Plant Location SW 108th Ln & SW 18th Terr, Ocala, Florida 32671 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352-347-8228
Owner Address 10230 SE Hwy 25, Belleview, Florida 34420
Contact Person Dewaine Christmas Title Phone 352-347-8228
This Survey Date 11/19/2020 Last Survey Date 01/23/2018 Last Compliance Inspection Date 08/29/2014

PWS TYPE: Transient Non-Community

PLANT CATEGORY & CLASS: 5C

MAX-DAY DESIGN CAPACITY: 260,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS

Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 92
Population Served 230 Basis MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 5+1 *Actual* 5+1
Non-consecutive Days? ☐ Yes ☒ No ☐ N/A
Comments 5 visits/week and one visit each weekend for a total of 0.6 hour/week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 25,020 gpd
Maximum Day (from MORs) 43,600 gpd 08/2020
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Master Meter
Date Last Calibrated 03/23/2016

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐ Yes ☐ No ☒ Unknown
Audio-visual alarm? ☐ Yes ☐ No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None Observed # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 02/15/2010
Comments

PWS ID # 3424046
Date 11/19/2020

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1(AAG9894)**			
Year Drilled		1980			
Depth Drilled		Unknown			
Drilling Method		Unknown			
Type of Grout		Unknown			
Static Water Level		Unknown			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		Unknown			
Diameter (outside casing)		6”			
Material (outside casing)		Black steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	>200’			
	Reuse Water	N/A			
	WW Plumbing	>100’			
	Other Sanitary Hazard	None observed			
PUMP	Type	Submersible			
	Manufacturer Name	Sta-Rite			
	Model Number	Unknown			
	Rated Capacity (gpm)	360			
	Motor Horsepower	30			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		Yes			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		Yes			

COMMENTS _____

PWS ID # 3424046
Date 11/19/2020

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Uni-Dose Capacity 12 gpd
Chlorine Feed Rate 60%
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.73 Remote 1.47
Remote tap location 1774 SW 108th Ln
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	3,000	
Material	Steek	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	No	
PRV/ARV	Both	
Pressure Gauge	Yes	
On/Off Pressure	40/60	
Access Secured	Yes	
Access Manhole	Yes	
Tank Sample Tap Location	Discharge piping	
Date of Inspection	*	
Date of Cleaning	*	

Comments *Tank installed 07/2015. Inspection due by end of 2020.

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2019 results have not been received, early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2021, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2021.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators

COMMENTS:

- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the

Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

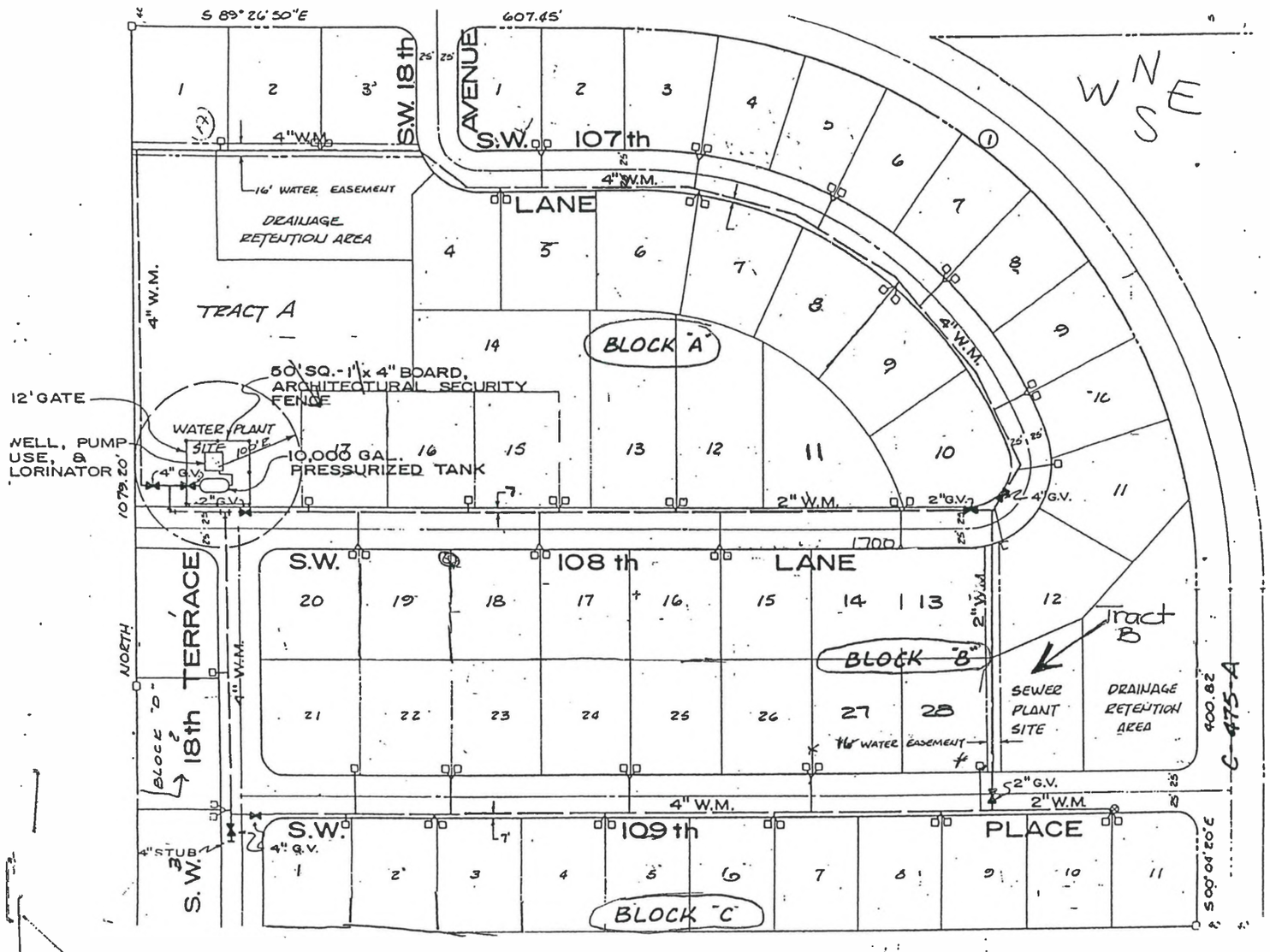
- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

M E Rothenberger	Daniel K Hall
Inspector Signature	*Reviewer Signature*
Miranda Rothenberger	Daniel K. Hall
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
11/23/20	December 11, 2020
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

Quail Run

Acct #'s 24000



- QUAIL RUN - S/D 10

101 ↑

Quail Run

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Sandy Acres

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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APPENDICES

Appendix A: Source Water Assessment & Protection Program Results
Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Little Lake Weir. A summary of the main parameters for the water system are summarized below in Table 1-1.

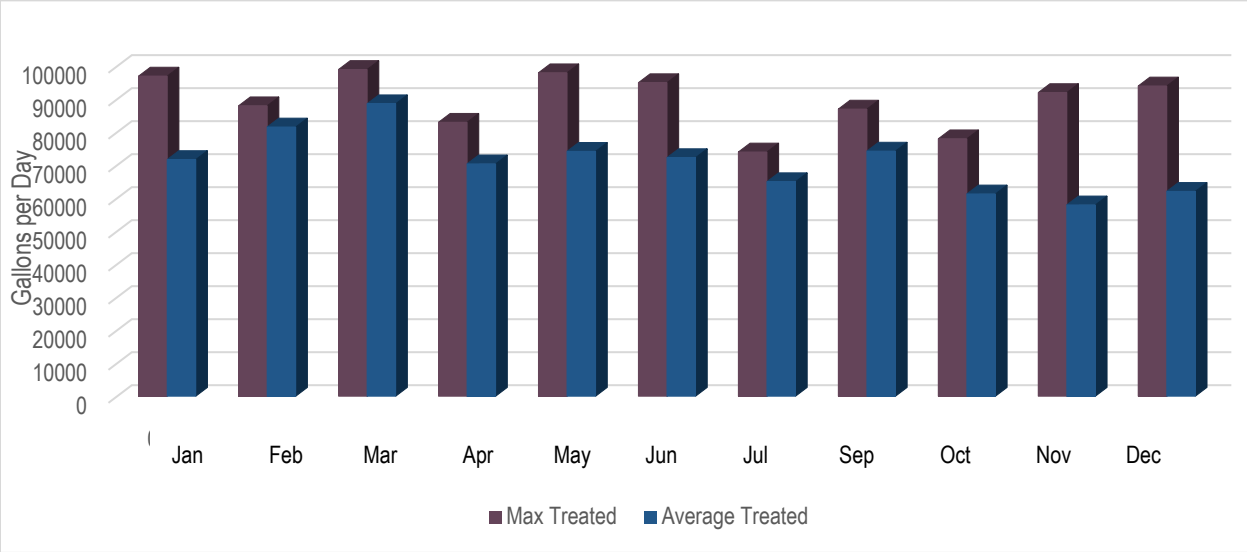
Table 1-1: Sandy Acres System Information

Water System Name	Sandy Acres
PWD ID Number	3421118
Classification	Community
Plant Category & Class	5D
Street Address	16968 SE 251St Ter
City, State	Umatilla, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	607 (Sanitary Survey)
Number of Service Connections	243 (Sanitary Survey)
Pending Developments	Sunshine representative noted there are quite a few empty lots in the service area.
Average Day Water Use	70,851 GPD (2019 Monthly Reporting)
Maximum Day Water Use	99,000 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	230,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Sandy Acres community is depicted in Figure 1-1.

Figure 1-1: Sandy Acres Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two wells onsite, Well 1 and Well 2. Water is pumped from Well 1 through a swing arm check valve and a 4-inch gate valve. Water is pumped from Well 2 through a 3-inch swing arm check valve and a 3-inch weight lever check valve before joining with the water from Well 1 and flowing through a 4-inch Sensus flow meter. Chlorine is injected for disinfection. There are two points where water flows to distribution, one prior to the hydropneumatic tank and one after the 2,000-gallon steel hydropneumatic storage tank. The well pump turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. There is a 4-inch bypass line for the tank that is normally closed.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	180 feet deep, 230 GPM	1981 (Sanitary Survey)	Fair
Source	Well 2	179 feet deep, 89 GPM	1981(Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	2,000 gallons, Steel	Unknown	Fair
Generator	Sentry Pro	12 kW	Unknown	Poor
Pump Station Building	Wooden with Aluminum Siding	10 by 19-foot building	Unknown	Poor

2.1.1 Source

Well 1 is located within a locked fenced in area near the pump station building and 50 feet from SE 251St Ter. The well is located 3 feet from the back of the building and 16 feet from the fence line. The top of the well casing is 1 inch above grade and within a concrete pad. The well is 180 feet deep with a submersible Sta-rite 230 GPM pump with a 15 HP motor. Well 1 has a sample tap and a screened vent with a flapper check valve on the top of the well. Well 1 acts as the “lead” well, so it supplies most of the community water demands.

Well 2 is located 10 feet from Well 1. The top of the well casing is 4 inches above grade and within a concrete pad. The well is 179-feet deep with a submersible 89 GPM pump with a 5 HP motor. Well 2 has a sample tap and a screened vent on top of the well. The well and piping has no coating and has signs of rust and corrosion. Well 2 acts as the “lag” well, so it only supplies water if the community water demands is greater than what Well 1 can provide. Well 1 and Well 2 are shown in Figure 2-1.

The flow from both wells joins inside the pump station building and flows through a 4-inch Sensus meter shown in Figure 2-2.

Both wells are below the required 12-inch height, however FDEP has noted they will continue to accept the casing height unless there are signs of contamination.

There are no potential sources of contamination within 1000 feet of either of the wells at the water treatment plant. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1 and Well 2

Figure 2-2: Combined Source Meter

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine strength is 10.5%, the mix is 1:4 and is stored in a 55-gallon drum located inside the pump station building with an additional 55-gallon drum used for storing chlorine. There are two chemical pumps, one for each well, however the chemical pump for well #2 was not plugged into an outlet at the time of inspection but was plugged back in after it was brought to the attention of the Sunshine Utilities representative. The outlet for the chemical treatment pumps is not sealed to the conduit and has exposed wires, it should be replaced. Both chemical pumps are a 12 GPD Uni-Dose pump set at 50% stroke. The chemical metering pumps at the facility are shown in Table 2-2. The average distribution residual in 2019 was 1.5 mg/L.

The chlorine pumps will turn on when their respective pump is energized. Each chemical pump outlet is wired to the well pump starter. The outlet is not intact with exposed wires going to the outlet, shown in Figure 2-4.

Table 2-3: Sandy Acres Chemical Metering Pumps

Chemical Pump	Chlorine (Well 1)	Chlorine (Well 2)
Number of Pumps	1	1
Brand	Uni-dose	Uni-dose
Model	U021-281TT	U021-281TT
Size	12 GPD	12 GPD

Figure 2-3: Chlorine Treatment

Figure 2-4: Chemical Pump Outlet

2.1.3 Storage

The water treatment plant has a 2,000-gallon steel hydropneumatic storage tank on-site. The tank is plumbed with 4-inch isolation gate valves at the inlet and outlet of the tank with a 4-inch bypass line that is normally closed, and a tank drain located underneath the tank. The set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, and the pressure recorded during the site inspection was 55 psi. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. on December 13, 2018 and stated that the tank exterior appeared to be in good structural condition. The interior coating was in fair condition with only slight surface corrosion noted along the tank ridge. Please refer to Appendix B for the 2018 Tank Inspection Report.

Figure 2-5: Storage Tank

2.1.4 Pump Station Building

The pump station building is a 19-foot by 10-foot wood building with aluminum siding primarily used for storage of the chemical treatment, facility logbook, generator, control panels, and piping from the wells to the storage tank. The building has two sections, one is used for the chemical treatment and the other holds the generator, control panels, and piping. The building's wood siding had portions that were failing, and the overall condition of the building was poor. The building is within a fence with a locked gate, and has no floor drains, chemical containment, or PPE on site. There is a fire extinguisher onsite, however it was observed to be empty. There are lights inside the building, but they did not work. The building and building interior is shown in Figure 2-6 and Figure 2-7.

Figure 2-6: Pump Station Building

Figure 2-7: Pump Station Building Interior

2.1.5 Back-Up Power

The Ocala Heights plant has a 12 kW Sentry Pro generator unit onsite to power the well pumps if there is an interruption in power supply, shown in Figure 2-8. The generator is not exercised on a periodic basis, and the site is equipped with an automatic transfer switch. The generator runs on propane and is supplied by a 120-gallon propane tank. During the inspection, the petroleum tank was at 55% storage capacity. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-8: Back-up Power Generator

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on February 5, 2021 and the report stated that no deficiencies were noted during the inspection. Refer to Appendix E for the most recent Sanitary Survey Report. According to the Florida Department of Environmental Protection's database, the Sandy Acres plant received six violations for disinfectants and disinfection byproducts monitoring and reporting. The most recent violation was on November 8, 2018 and the facility was brought back into compliance November 26, 2018.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

The lighting at the building does not work, and there is no outside lighting. It is recommended the lights inside the building be fixed and floodlights be installed outside the building so it can be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time, the building's wood siding had portions that were failing, and the overall condition of the building was poor. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-4), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

The generator on site is old and will likely be due for replacement. Standby power is required at this site per Florida Administrative Code 62-555.320 (14) (a).

2.3.2 Source of Supply

The conduit wires supplying power to the pump in Well 2 are not sealed and therefore the well casing is not water-tight. This is required under Florida Administrative Code 64-E.8005(2)(g).

Figure 2-9: Exposed Conduit Wires on Well 2

2.3.3 Water Treatment and Pumping

continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 55-gallon drums for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005.

This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon tanks and storing the chemicals on a pallet such as the PIG PAK 604 containment pallet with a 66-gallon containment capacity and keep it stored in the pump station building. An example is shown in Figure 2-10.

Figure 2-10: PIG 66-Gallon Containment Pallet

The most recent storage tank inspection stated that the interior coating was in fair condition with only slight surface corrosion noted along the tank ridge. The tank interior should be checked again during the next tank inspection to see if the interior should be sandblasted and recoated, as noted in the tank inspection recommendations.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1981 and supplies water using a 2 to 6-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed located at most roadway intersections. The system provides the community with potable water only (no fire flow water). Sunshine utility representatives stated that there are blowoff valves on most dead ends in the system, although these are not shown on the distribution map. Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant but there are many vacant lots.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Sandy Acres to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Sandy Acres is: **$52,000**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$40,000
Mission Monitoring at Well	$10,000
Total	$51,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,000
Total	$1,000

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Sandy Acres to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Table 4-3 through Table 4-6. The total cost estimate for Capital Improvements at Fore Oaks is: **$107,500**.

Table 4-3: General Plant Capital Improvements

Recommendation	Estimate
Generator Replacement	$35,000
Building and Site Repair	$25,000
Total	$60,000

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Interior Tank Coating	$5,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$16,500

Table 4-5: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-6: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$4,000
Total	$4,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

SANDY ACRES
24901 SE COUNTY HWY 42
UMATILLA, FL 32784

Public Water System ID: 3421118

Previously Known As:
SANDY ACRES (PKA LINADALE)

County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: MOBILE HOME PARK
Population Served: 607
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
23272	SOUTH WELL #2	N/A	ACTIVE	179	Floridan Aquifer
5667	NORTH WELL #1	AAG9607	ACTIVE	180	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

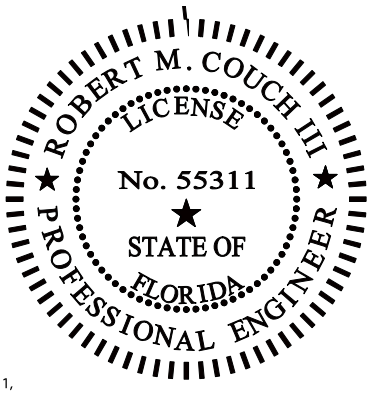
Sandy Acres Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Sandy Acres Subdivision
Street Address:	SE 251st Terrace/SE 170th Street
City, State:	Marion County, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3421118
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 13, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.27 21:14:28 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 13, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall good structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 5.9 millimeters. UTM readings from the tank heads indicated an average thickness of 5.86 millimeters. The exterior coating of the tank appeared to be in overall fair condition with no notable surface corrosion. The interior coating of the tank appeared to be in fair condition with only slight surface corrosion beginning to form along portions of the tank ridge where the coating was beginning to fail.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 13'-2" (15'-2" including elliptical heads)
Diameter: 5'-0" outside diameter
Volume: 2,000 gallons with elliptical heads
Tank Age: Approximately 30 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along the tank ridge.

6.3 Ultrasonic Metal Thickness Testing

A total of 47 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 5.90 millimeters in the cylindrical section and 5.86 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in good structural condition.

7.2 Tank Interior

The tank interior appeared to be in fair condition. There was only slight surface corrosion noted along the tank ridge.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 5.90 mm / (756 mm+0.6 x 5.90 mm)
= 0.466 MPa
= 68 psi

When:

t < 0.5R = 0.5 x 756 = 378.05 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 5.90 mm
R = inside radius of shell course under consideration (mm) = 756 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Sandy Acres subdivision 2,000-gallon hydropneumatic pressure tank was performed on December 13, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already begun to fail.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

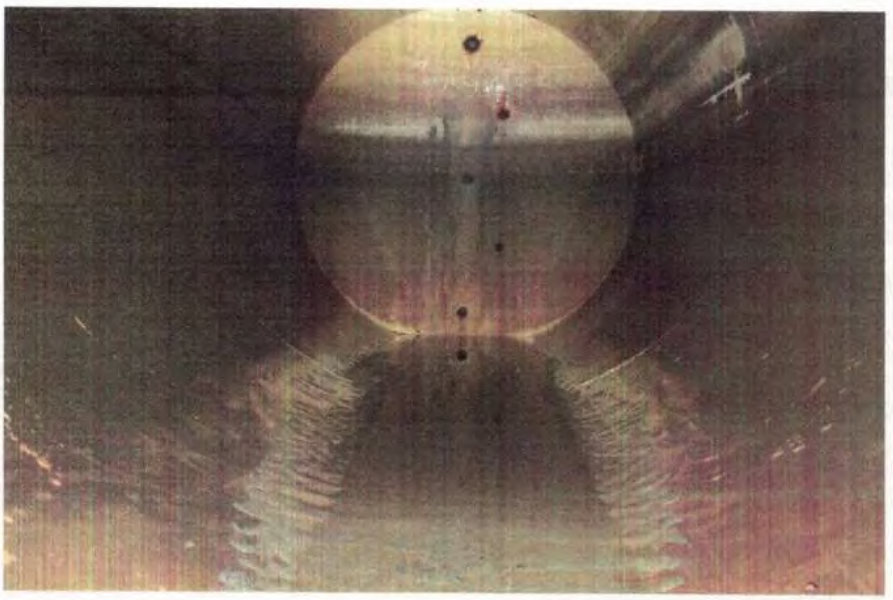
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 1/27/2019

Robert M. Couch III, P.E. Registration No. 55311

Typical exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

Sandy acres

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	256
PWS:	3421118
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	SECO	352-237-4107		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(2) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 180 and 179 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	80677 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3421118**	
System name and address	**Sandy Acres**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**16968 SE 251st Terr**	
Population served and service connections.	Population =	Connections = 256
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	80677 GPD
Maximum Daily Demand (gpd)	90000 GPD
System Capacity (gpd)	230,000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	16968 SE 251st Terr	16968 SE 251st Terr		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	180FT	179 FT		
Well Yield (gpd)	331,200 GPD	128,160 GPD		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta-Rite		
Capacity (gpm)	230 GPM	89 GPM		
Motor Manufacturer	Franklin	Franklin		
Horsepower	15 HP	5		
Phase	3	1		
Volts/Amps	230 volts	230 Volts		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Sandy Acres Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3421118 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.

(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ■ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ■ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Sandy Acres

Florida Department of Environmental Protection Public Water System ID # 3421118

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have "No Potential Sources of Contamination". You may obtain more information at the web site *www.dep.state.fl.us/swapp*.

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019 and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR SANDY ACRES

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228	(pCi/L)	AUG'15	No	1.5	N/A	0	5	Erosion of natural deposits

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAY '18	No	0.3	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAY '18	No	0.011	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	MAY '18	No	0.15	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC'19	No	0.23	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	(ppm)	MAY '18	No	5.4	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.8	0.5 - 1.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5)	(ppb)	SEP'19	No	0.91	N/A	N/A	MCL = 60	Byproduct of drinking water disinfection
Total Trihalomethanes (tTHM)	(ppb)	SEP'19	No	1.83	N/A	N/A	MCL = 80	Byproduct of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	AUG '18	No	0.035	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of
- water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations for water quality. We are very pleased to report that our drinking water met all federal and state requirements,

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019SandyAcres.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

February 11, 2021

Dewaine Christmas, Owner
Sunshine Utilities of Central FL, Inc.
10230 SW Hwy 25
Belleview, Florida 34420
sunshineutl@aol.com

Re: Sandy Acres
PW Facility ID #3421118
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on February 5, 2021. Based on the information provided during and following the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Miranda Rothenberger at 407-897-4301 or via e-mail at Miranda.Rothenberger@FloridaDEP.gov.

Sincerely,

Daniel K. Hall, Manager
Central District
Florida Department of Environmental Protection

Enclosure: February 5, 2021 Inspection Report

cc: Miranda Rothenberger, FDEP

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **SANDY ACRES** County Marion PWS ID # **342118**
Plant Location 24901 SE Highway 42, Umatilla, Florida 32784 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352-347-8288
Owner Address 10230 SE Highway 25, Belleview, Florida 34420
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 02/05/2021 Last Survey Date 01/23/2018 Last Compliance Inspection Date 08/08/2001

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 230,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Mobile Home Park
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 243
Population Served 607 Basis MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit* *Actual* Visit
Days/wk: *Required* 3* *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments 3 visits/week on nonconsecutive days for a total of 0.3 hour/week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 71,113 gpd
Maximum Day (from MORs) 112,000 gpd 04/2020
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 4" Sensus
Date Last Calibrated 12/04/2018

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Propane generator
Capacity of Standby (kW) 12
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 0
What equipment does it operate?
☒ Well Pumps 2
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒ Yes ☐ No ☐ Unknown
Audio-visual alarm? ☐ Yes ☐ No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3421118
Date 02/05/2021

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1(AAG9607)**	**2**		
Year Drilled		1981	1981		
Depth Drilled		180’	179’		
Drilling Method		Cable tool	Cable tool		
Type of Grout		Neat Cement	Neat Cement		
Static Water Level		60’	60’		
Pumping Water Level		Unknown	Unknown		
Design Well Yield		Unknown	Unknown		
Test Yield		Unknown	Unknown		
Actual Yield (if different than rated capacity)		Unknown	Unknown		
Strainer		Unknown	Unknown		
Length (outside casing)		108’	110’		
Diameter (outside casing)		6”	6”		
Material (outside casing)		Black steel	Black steel		
Well Contamination History		None	None		
Is inundation of well possible?		No	No		
6’ X 6’ X 4” Concrete Pad		Yes	Yes		
SET BACKS	Septic Tank	>200’	>200’		
	Reuse Water	N/A	N/A		
	WW Plumbing	>100’	>100’		
	Other Sanitary Hazard	None observed	None observed		
PUMP	Type	Submersible	Submersible		
	Manufacturer Name	Sta-Rite	Sta-Rite		
	Model Number	Unknown	Unknown		
	Rated Capacity (gpm)	230	89		
	Motor Horsepower	15	5		
Well casing 12” above grade?		*No	*No		
Well Casing Sanitary Seal		Yes	Yes		
Raw Water Sampling Tap		Yes	Yes		
Above Ground Check Valve		Yes	Yes		
Security		Yes	Yes		
Well Vent Protection		Yes	Yes		

COMMENTS * The Department will continue to accept the well casing height as it currently exists unless there are signs of microbial or chemical contamination.

PWS ID # 3421118
Date 02/05/2021

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech/Uni-Dose Capacity 15/12 gpd
Chlorine Feed Rate 100% / 60%
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.41 Remote 1.20
Remote tap location Green acres country store
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms:			
Loss of Cl_2 capability	☐	☐	
Loss of Cl_2 residual	☐	☐	
Cl_2 leak detection	☐	☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	2,000	
Material	Steel	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	Yes	
PRV/ARV	PRV	
Pressure Gauge	Yes	
On/Off Pressure	30/50	
Access Secured	Yes	
Access Manhole	Yes	
Tank Sample Tap Location	Discharge piping	
Date of Inspection	12/13/2018	
Date of Cleaning	12/13/2018	

Comments Next tank inspection due in 2023.

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

No deficiencies were noted at the time of this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2021 results have not been received, early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2021, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2021.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the

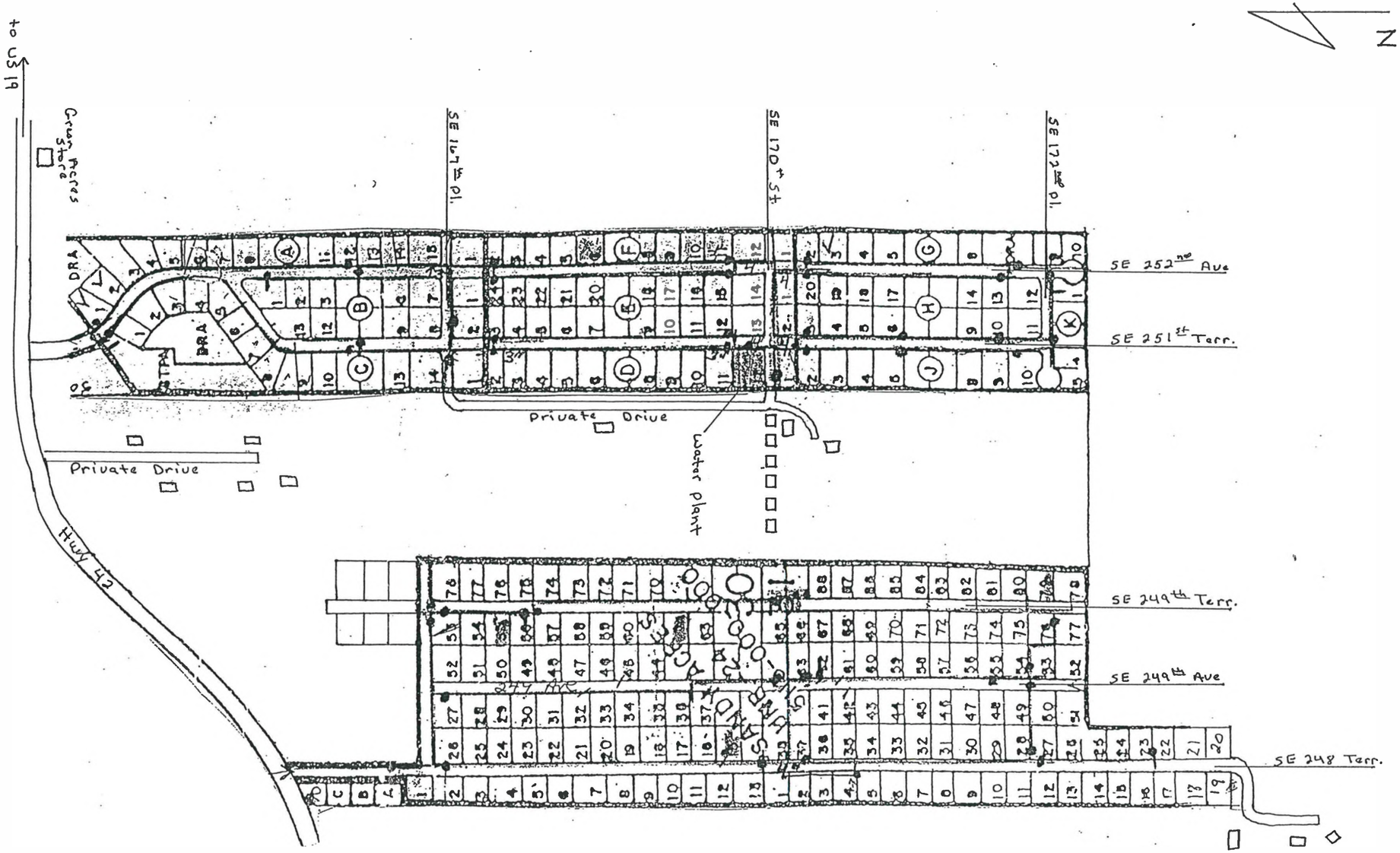
Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

M E Rothenberger	Daniel K Hall
Inspector Signature	*Reviewer Signature*
Miranda Rothenberger	Daniel K. Hall
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
02/10/2021	February 11, 2021
Date	*Date*

APPENDIX F: DISTRIBUTION MAP

Sandy Acres


to US 19
Crum Acres Store
SE 167th Pl.
SE 170th St
SE 172nd Pl.
SE 252nd Ave
SE 251st Terr.
SE 249th Terr.
SE 249th Ave
SE 248 Terr.
Private Drive
Private Drive
Water plant
Hwy 42
DRA
TPA
N

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Sun Ray Estates

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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Appendix B: Tank Inspection Report
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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Sun Ray Estates. A summary of the main parameters for the water system are summarized below in Table 1-1.

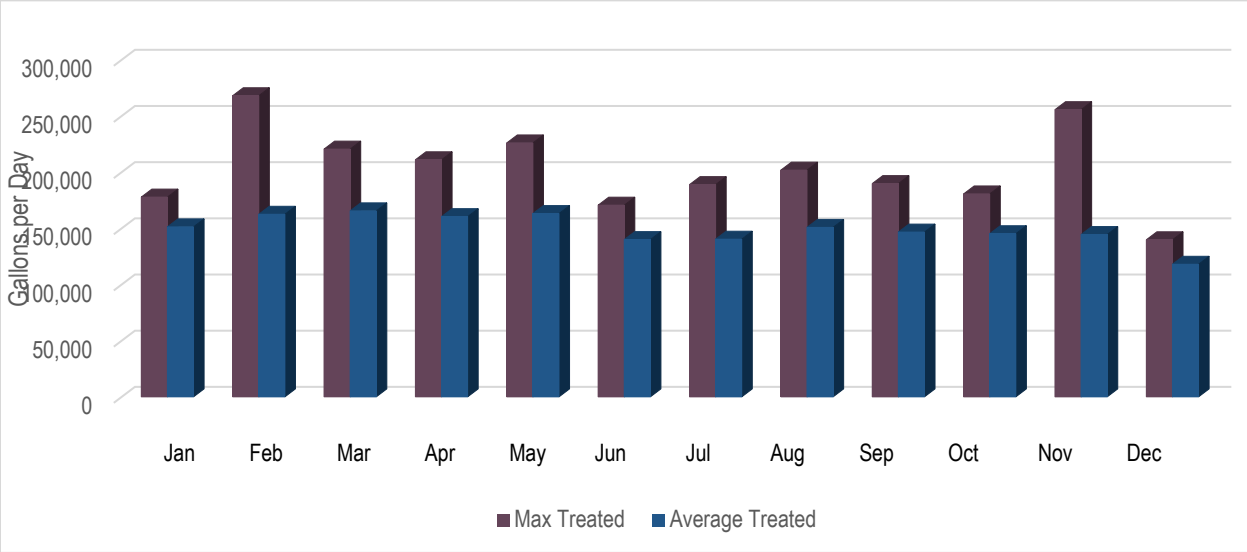
Table 1-1: Sun Ray Estates System Information

Water System Name	Sun Ray Estates
PWD ID Number	3421314
Classification	Community
Plant Category & Class	5C
Street Address	3420 NE 22nd Ct
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	1,999 (Sanitary Survey)
Number of Service Connections	572 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	149,016 GPD (2018 Monthly Reporting)
Maximum Day Water Use	268,000 GPD (2018 Monthly Reporting)
Max-Day Design Capacity	396,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Sun Ray Estates community is depicted in Figure 1-1.

Figure 1-1: Sun Ray Estates Average Water Use 2018



Source: 2018 Monthly Reporting

Data displayed is from 2018 because the facility's flow meter was inoperable in 2019. It was replaced in September 2020.

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two water wells onsite, Well 1 and Well 2. Water from Well 1 and Well 2 each flow through check valves with swing arms before chlorine chemical injection points and then flow is combined before entering into the 10,000-gallon steel hydropneumatic storage tank. The well pumps are called to turn on when the pressure in the tank is at 45 psi and turn off at 65 psi by a pressure switch located at the tank. Chlorine is added to the well water for disinfection prior to entering the tank. There is a 4-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side of the inlet and travels through a 4-inch Neptune flow meter before being delivered to the distribution system. The distribution network has three (3) separate distribution pipes with valves to isolate different subdivisions, shown in Figure 2-1. The distribution pipes were labeled as Jason's Landing, Stone Hill, and Sunray.

Figure 2-1: Distribution Network

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	165 feet deep, 410 GPM	1965 (Sanitary Survey)	Poor
Source	Well 2	160 feet deep, 140 GPM	1972 (Sanitary Survey)	Fair
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	10,000 gallons, Steel	Unknown	Poor
Generator	Generac	34 kW	Unknown	Fair
Building	CMU	17.5 by 19-foot	Unknown	Fair

2.1.1 Source

Well 1 is located within a locked fenced in area 15 feet from the pump station building and 35 feet from NE 22nd Ct. The well is located near the back fence. The top of the well casing is 4-inches above grade and within a concrete pad. This is lower than the required 12-inches however FDEP noted they will continue to accept the current height unless the well shows chemical or microbial contamination. The well is 165 feet deep with a submersible Sta-rite 410 GPM pump with a 25 HP motor. Well 1 has a sample tap and an open vent with a check valve but no screen. Well 1 acts as

the “lag” well, so it only supplies water if the community water demand is greater than what Well 2 can supply. During the inspection, the chlorine injection tubing was not connected to the injection point. The reason for this is unknown. Well 1 is shown in Figure 2-2.

Figure 2-2: Well 1

Well 2 is the located 3 feet from the pump station building and 35 feet from NE 22nd Ct. The well is also located near the back fence. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 160-feet deep with a submersible 140 GPM pump with a 10 HP motor. Well 2 has a screened vent with a check valve and a sample tap off the top of the well. Well 2 acts as the lead well, so it supplies most of the community water demands. Well 2 is shown in Figure 2-3.

Figure 2-3: Well 2

There are no potential sources of contamination within 1000 feet of either of the wells at the water treatment plant. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is added to the well water for the purpose of disinfection prior to the hydropneumatic tank. 10.5% liquid sodium hypochlorite is injected directly into the pipe between the well and the storage tank and is stored in a 165-gallon storage tank located inside the pump station building. There are two chemical pumps, one for each well, however the chemical pump for Well #1 had no tubing attached. The system representative did not know the reason it was removed. Both

wells are supplied by 24 GPD Uni-Dose pumps, set at 75% stroke from Well #2 and 50% stroke for Well #1 The chemical metering pumps at the facility are shown in Table 2-2. The average distribution residual in 2019 was 1.5 mg/L.

The chlorine pumps are interlocked with the well pumps to supply chlorine to the water when the well pumps are energized. Each chemical pump electrical outlets are hardwired to the well pump starters.

Table 2-2: Sun Ray Estates Chemical Metering Pumps

Chemical Pump	Chlorine (Well 1)	Chlorine (Well 2)
Number of Pumps	1	1
Brand	Uni-dose	Uni-dose
Model	UD001-238NU	UD001-238NU
Size	24 GPD	24 GPD

Figure 2-4: Chlorine Treatment

2.1.3 Storage

The water treatment plant has a 10,000-gallon hydro pneumatic storage tank on-site, shown in Figure 2-5. The tank is plumbed with 4-inch isolation gate valves at the inlet and outlet of the tank with a 4-inch bypass line that is normally closed, and a tank drain located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, and the pressure recorded during the site inspection was 60 psi. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup. A 4-inch Neptune meter is located downstream of the tank to measure drinking water delivered to the distribution system as shown in Figure 2-6.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in January 2019 and stated that the tank exterior appeared to be in fair condition and the tank interior appeared to be in poor condition. The report stated that there were significant areas where the coating had failed, and corrosion had formed on the interior tank surface. Please refer to Appendix B for the 2019 Tank Inspection Report.

Figure 2-5: Storage Tank

Figure 2-6: Distribution Meter

2.1.4 Pump Station Building

The pump station building is a 17.5 by 19-foot CMU building with a wooden roof primarily used for storage of the facility logbook, control panels, and chemical storage tank. The building is accessed by a door that opens outward and is an overall width of 4.5 feet. The building had no evidence of roof leaks but did have evidence of rodents and the building has holes that could allow water or insects to enter the building. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available onsite.

Figure 2-7: Pump Station Building and Generator

Figure 2-8: Pump Station Building Interior

Figure 2-9: Pump Station Building Interior

2.1.5 Back-Up Power

The Sun Ray Estates plant has a 34 kW Generac Generator unit onsite to power the well pumps if there is an interruption in power supply. The site is equipped with automatic transfer switch to energize the generator if distribution power is interrupted. The generator runs on propane and is supplied by two 120-gallon propane tanks. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There were no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on January 23, 2018 and the report stated that no deficiencies were noted during this inspection. According to the Florida Department of Environmental Protection's database, the Sun Ray Estates plant received six violations for disinfectants and disinfection byproducts monitoring and reporting in 2017 and 2020. The plant was most recently returned to compliance on January 23, 2020.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and floodlights should be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time. The building had evidence of rodents and has holes that could allow water or insects to enter the building. The building also offers little protection from weather and tampering as there is no door. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. A system similar to that as supplied by Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

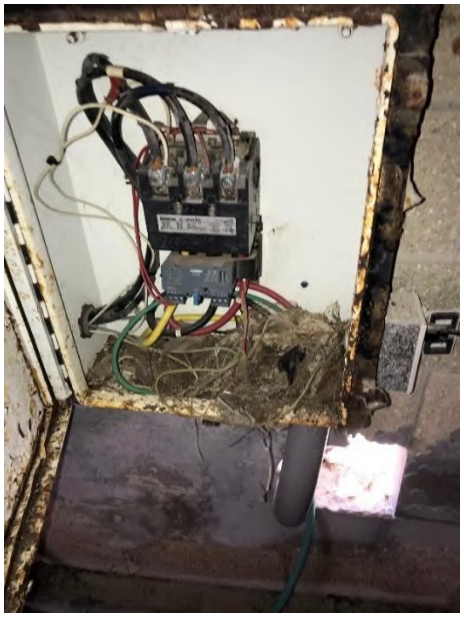
- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-10), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a conceptual level cost estimate.

Figure 2-10: Debris Build-Up in Panel



2.3.2 Source of Supply

The vent on Well #1 should have an insect screen installed over the vent.

2.3.3 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow notification to the operations staff if the chlorine dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The chemical pump tubing for well #1 should be reinstalled.

There are chemicals stored onsite have no secondary containment to protect against accidental release into the environment. Currently there is a 165-gallon storage tank for chlorine. The tank should be stored on a pallet that can contain the total volume of the chemical. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the bulk tanks with a 275-gallon intermediate bulk container (IBC), and storing the chemicals in a pallet such as the PIG IBC Spill Containment Pallet, with a 360-gallon containment capacity. An example is shown in Figure 2-11.

Figure 2-11: PIG IBC Spill Containment Pallet

The hydropneumatic tank inspection report noted that the interior coating was in poor condition with significant areas where the coating had begun to fail, and corrosion had formed on the tank interior surface. The tank is likely over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was constructed in 1970s and expanded in the 1980s and supplies water through a piping network ranging from 2 to 6-inch PVC in a loop configuration with blowoff valves on dead ends for multiple subdivisions. The distribution system includes numerous gate valves to isolate sections, if necessary, and are generally located at most roadway intersections. The distribution system provides the community with potable water only and does not have fire flow capacity, in terms of supply capacity and storage. Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities staff report that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines extending from the water main. Each home has its own aboveground meter in the public right-of-way adjacent to the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Sun Ray Estates to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Sun Ray Estates is: **$63,600**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$50,000
Mission Monitoring at Well	$10,000
Total	$61,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$2,600
Total	$2,600

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Sun Ray Estates to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Table 4-3 through Table 4-5. The total cost estimate for Capital Improvements at Sun Ray Estates is: **$75,500.**

Table 4-3: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Interior Tank Coating	$8,000
Transmitters and Other Monitoring Equipment	$2,500
Replace Distribution Meter	$4,000
Total	$23,500

Table 4-4: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-5: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

SUN RAY ESTATES
NE 35TH AVENUE
OCALA, FL 34471

Public Water System ID: 3421314
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 1999
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5724	NORTH WELL	AAE0258	ACTIVE	165	Floridan Aquifer
5725	SOUTH WELL	AAE0257	ACTIVE	160	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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Exit Disclaimer
Privacy Statement

3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

Sun Ray Estates Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Sun Ray Estates Subdivision
Street Address:	10230 SE CR 25
City, State:	Marion County, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3421314
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	January 10, 2019

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com

ROBERT M. COUCH III ★ LICENSE ★ No. 55311 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.02.07 21:34:29 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on January 10, 2019 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 8.88 millimeters. UTM readings from the tank heads indicated an average thickness of 12.31 millimeters. The exterior coating of the tank appeared to be in overall fair condition with no notable surface corrosion. The interior coating of the tank appeared to be in poor condition with significant surface corrosion beginning to form along the tank ridge and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 28'-9" (31.'-5" including elliptical heads)
Diameter: 7'-6" outside diameter
Volume: 10,000 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had failed over significant portions of the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 77 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 8.88 millimeters in the cylindrical section and 12.33 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/8" (9.53 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition.

7.2 Tank Interior

The tank interior appeared to be in poor condition. there were significant areas where the coating had failed and corrosion had formed on the interior tank surface.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 8.88 mm / (1134 mm+0.6 x 8.88 mm)
= 0.468 MPa
= 68 psi

When:

t < 0.5R = 0.5 x 1134 = 567.06 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 8.88 mm
R = inside radius of shell course under consideration (mm) = 1,134 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Sun Ray Estates subdivision 10,000-gallon hydropneumatic pressure tank was performed on January 10, 2019. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already failed.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

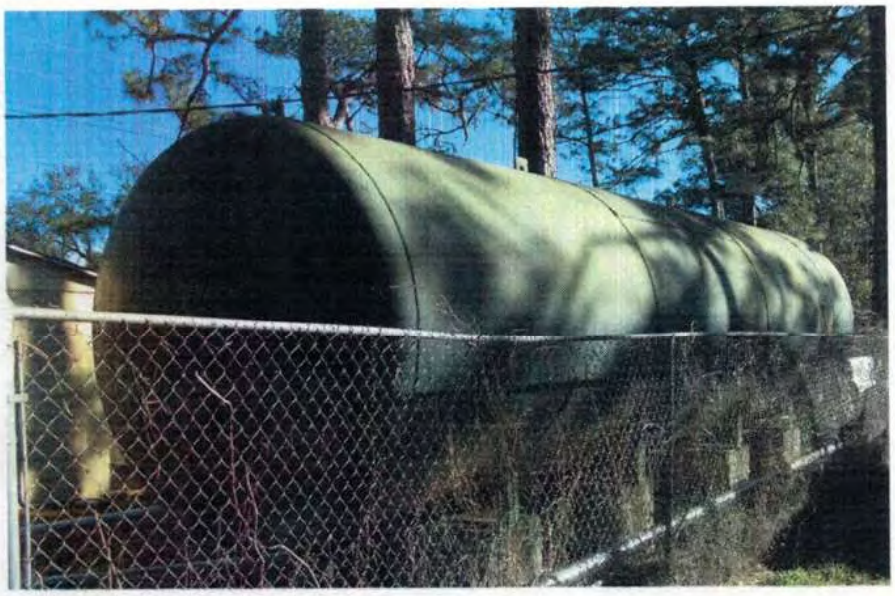
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

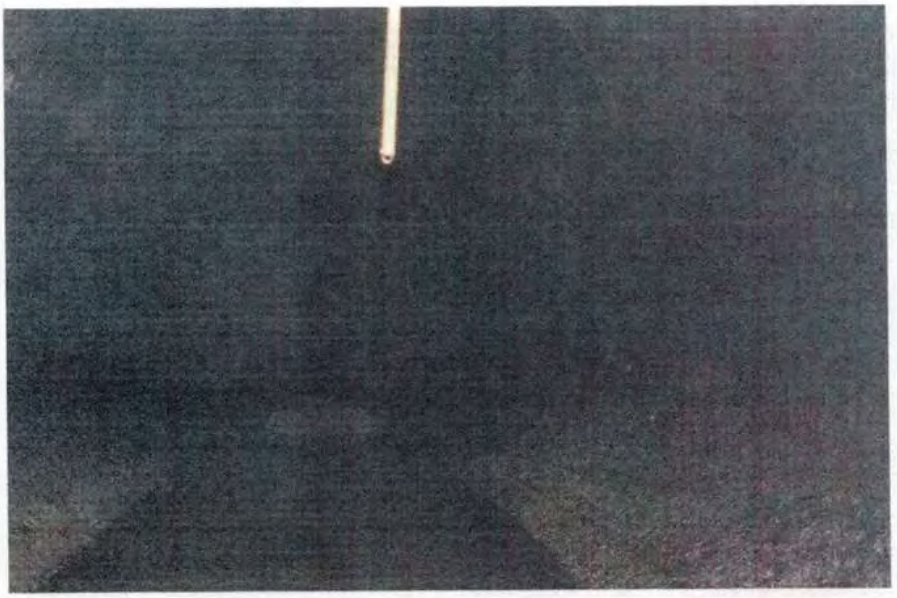
Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 2/7/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank





APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

SUNRAY

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	669
PWS:	3421314
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

Acknowledgment of federal government support of this project:

This project and the preparation of this booklet was funded in part by a Water Protection Coordination grant from the Environmental Protection Agency through an agreement/contract with the Drinking Water Program of the Department of Environmental Protection. Total cost of the project was $3,000 of which $3,000 or 100 percent, was provided by the U.S. Environmental Protection Agency.

Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Director	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	David Hannah	850-668-2746	352-267-5108	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-651-6666		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling Jeremy	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.

- If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

-

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, Hal McDonald 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" & (1) 8" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 165 & 160FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	165583 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	25KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3421314**	
System name and address	**SUNRAY**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**NE 3TH ST AND 22ND CT**	
Population served and service connections.	Population =	Connections = 669
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	165583 GPD
Maximum Daily Demand (gpd)	218700 GPD
System Capacity (gpd)	396000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	NE 35TH ST	NE 35TH ST		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	165 FT	105 FT		
Well Yield (gpd)	590400GPD	201600 GPD		
Pump Type	Submersible	SUB		
Manufacturer	Sta-Rite	STA RITE		
Capacity (gpm)	410 GPM	140 GPM		
Motor Manufacturer	Franklin	FRANKLIN		
Horsepower	25 HP	15 HP		
Phase	3	3		
Volts/Amps	230 volts	230 VOLTS		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Sun Ray Estates Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3421314 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☑ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☑ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☐ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☐ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☐ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.
(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Sun Ray Estates

Florida Department of Environmental Protection Public Water System ID # 3421314

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our wells. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have "No Potential Sources of Contamination". We will use this information for future resource and protection planning. You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

Sun Ray Estates water system also serves the following communities; Baldwin Heights, Boulder Hill, Carol Estates, Jason's Landing, Pearl Britain, Stone Hill and Sugar Plum. If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR SUN RAY ESTATES

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	(pCi/L)	AUG '18	No	2.2	N/A	0	15	Erosion of natural deposits
Radium 226 + 228	(pCi/L)	AUG '18	No	1.5	N/A	0	50	

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	OCT '18	No	1.1	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	OCT '18	No	0.0035	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	OCT '18	No	0.19	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	1.65	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	OCT '18	No	0.6	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	OCT '18	No	9.9	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.5	0.6 - 2.4	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	NOV - DEC '19	No	0.91	ND - 0.91	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	NOV - DEC '19	No	2.52	2.26 - 2.52	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUN '18	No	0.39	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	JUN '18	No	1.9	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations for water quality. However, we incurred a violation for late monitoring and reporting of disinfection byproducts that may form in our distribution system. We collected the required samples in November and December of 2019 which was later than our approved sampling plan, all results were satisfactory. Future sampling will be done as required per sampling guidelines. The potential disinfection byproducts that may result from chlorinating water are Haloacetic acids and Trihalmethanes. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

APPENDIX E: SANITARY SURVEY REPORT

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **SUN RAY ESTATES** County Marion PWS ID # **3421314**
Plant Location NE 35th Street, Ocala, FL 34421 Phone 352/347-8228
Owner Name Sunshine Utilities of Central Florida, Inc. Phone 352/347-8228
Owner Address 10230 SE Highway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Owner Phone 352/347-8228
This Survey Date 1/23/18 Last Survey Date 8/19/15 Last Compliance Inspection Date 10/16/01

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5C

MAX-DAY DESIGN CAPACITY: 396,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 572
Population Served 1,999 Basis 12/17 mor

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 5+1 *Actual* 5+1
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 141,667 gpd
Maximum Day (from MORs) 220,100 gpd 5/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 4" AMCO
Date Last Calibrated 7/23/15

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Generac Protector QS
Capacity of Standby (kW) 34
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☒ Well Pumps
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☒Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 11/14/12
Comments

PWS ID # 3421314
Date 1/23/18

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**2 (AAE0357)South**	**1 (AAE0258)**		
Year Drilled		1965	1972		
Depth Drilled		165’	160’		
Drilling Method		Combination	Combination		
Type of Grout		Neat cement	Neat cement		
Static Water Level		20’	26’		
Pumping Water Level		Unknown	Unknown		
Design Well Yield		Unknown	Unknown		
Test Yield		Unknown	Unknown		
Actual Yield (if different than rated capacity)		Unknown	Unknown		
Strainer		Unknown	Unknown		
Length (outside casing)		45’	105’		
Diameter (outside casing)		6”	8”		
Material (outside casing)		Black steel	Black steel		
Well Contamination History		None	None		
Is inundation of well possible?		No	No		
6’ X 6’ X 4” Concrete Pad		Yes	Yes		
SET BACKS	Septic Tank	>200’	>200’		
	Reuse Water	N/A	N/A		
	WW Plumbing	>100’	>100’		
	Other Sanitary Hazard	None observed	None observed		
PUMP	Type	Submersible	Submersible		
	Manufacturer Name	Sta-Rite	Sta-Rite		
	Model Number	Unknown	Unknown		
	Rated Capacity (gpm)	410	140		
	Motor Horsepower	25	10		
Well casing 12” above grade?		No*	Yes		
Well Casing Sanitary Seal		OK	OK		
Raw Water Sampling Tap		Yes	Yes		
Above Ground Check Valve		Yes	Yes		
Security		Yes	Yes		
Well Vent Protection		N/A	Yes		

COMMENTS *The Department will continue to accept the well casing height as it currently exists unless it is shown to contain chemical or microbial contamination.

PWS ID # 3421314
Date 1/23/18

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech/Uni-Dose Capacity 30 gpd
Chlorine Feed Rate 80% / 60% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.9 Remote >2.2
Remote tap location 2831 NE 35th Street
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	**H**
Capacity (gal)	10,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	Both
Pressure Gauge	Yes
On/Off Pressure	40/60
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	Discharge piping
Date of Inspection	7/13
Date of Cleaning	7/13

Comments Tank inspection due 7/18

DEFICIENCIES:

No deficiencies were noted during this inspection.

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2018 results have not been received.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2018, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2018.
- Monitoring schedules are available on the Central District's Drinking Water Website. https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]

- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]

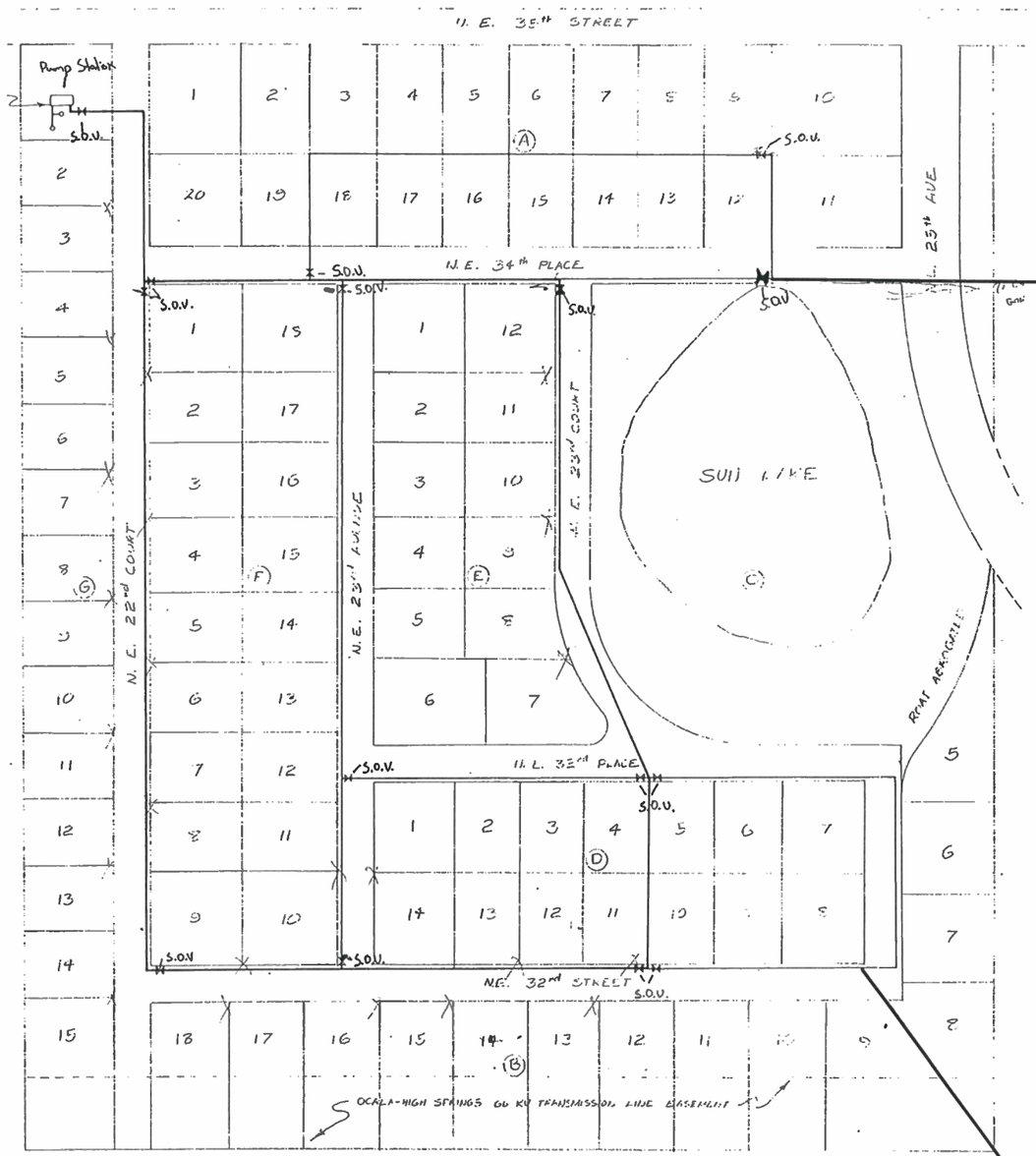
PWS ID # 3421314
Date 1/23/18

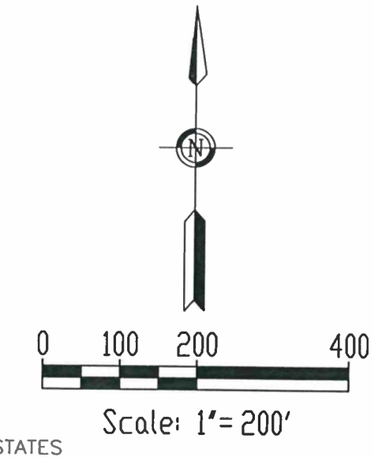
COMMENTS (continued):

- Suppliers of water shall issue precautionary "boil water" notices as required or recommended in the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature	*Reviewer Signature*
Viviana Penuela Useche	Christine Daniel
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
2-21-18	3/1/18

APPENDIX F: DISTRIBUTION MAP





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PH (352) 840-0888 FAX (352) 840-0774

SUNRAY
SUNSHINE INDUSTRIES INC.
FT. KING & MAIN
OCALA, FLORIDA

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1

Sheet 1 Of 1

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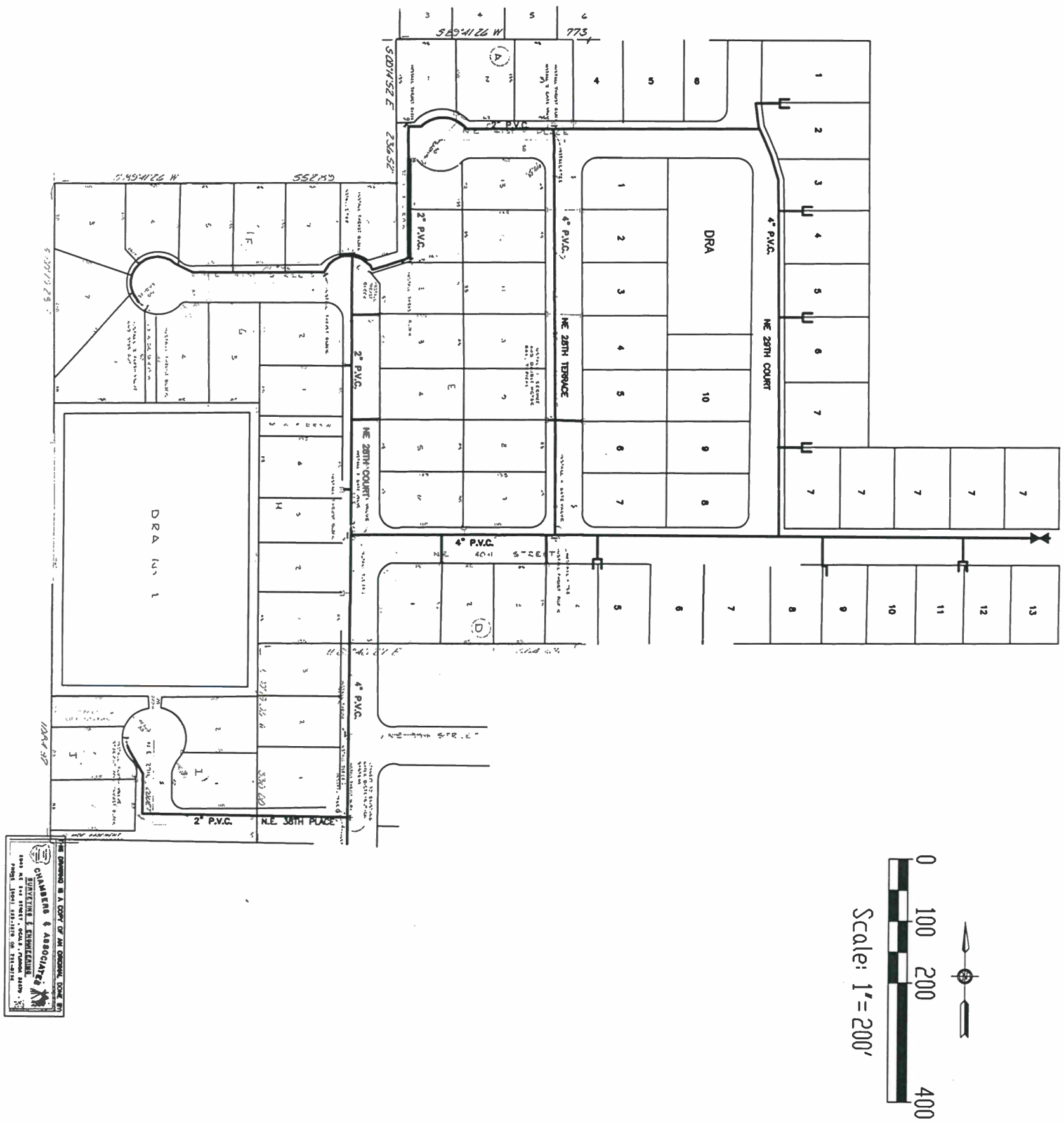

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SUGAR PLUM

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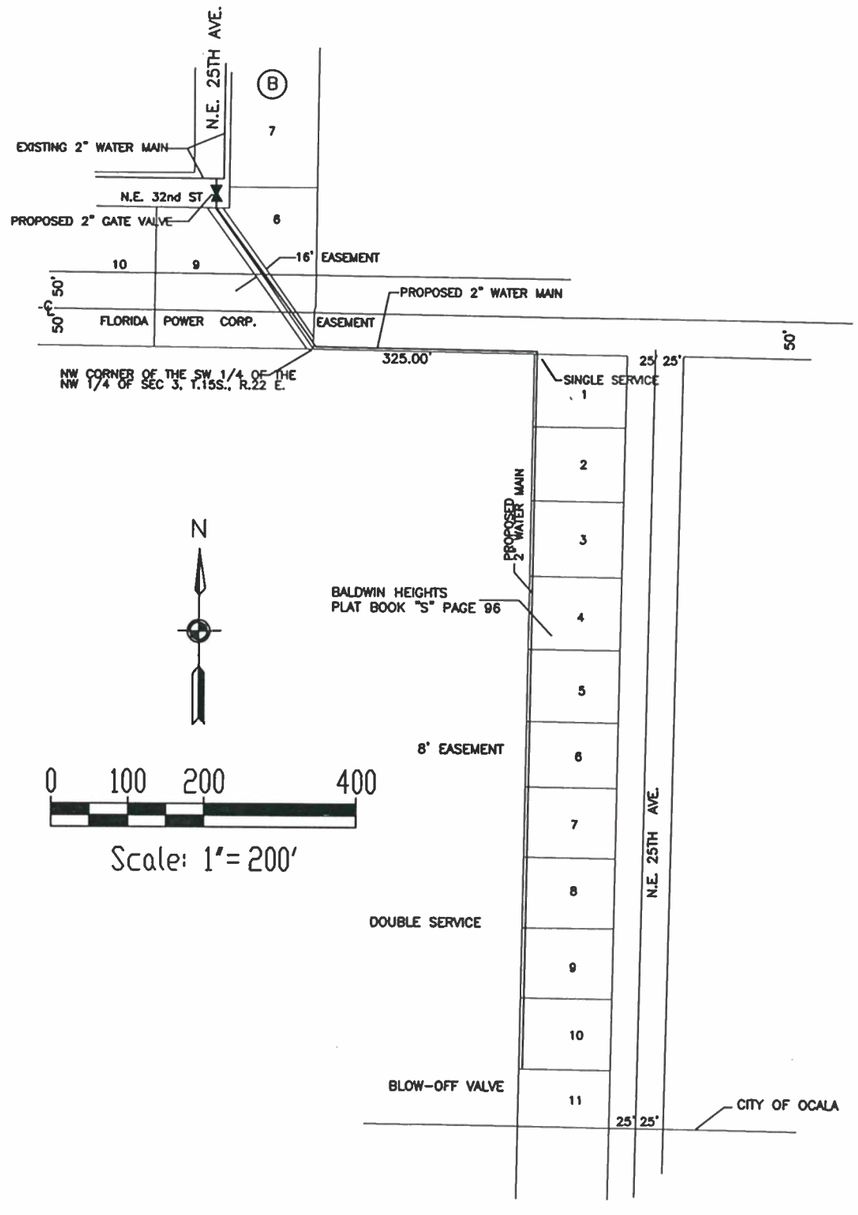

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FAX (352) 840-8774

BALDWIN HEIGHTS

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

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Sheet 1 Of 1

0 100 200 400

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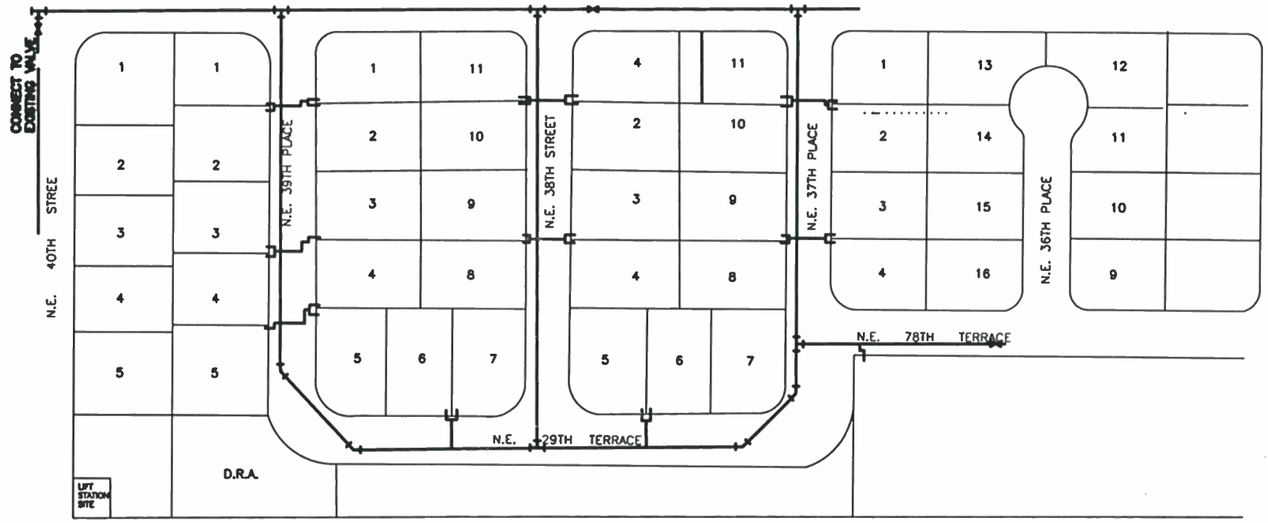

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BOULDER HILL

SUNSHINE UTILITIES, INC.
MARION COUNTY, FLORIDA

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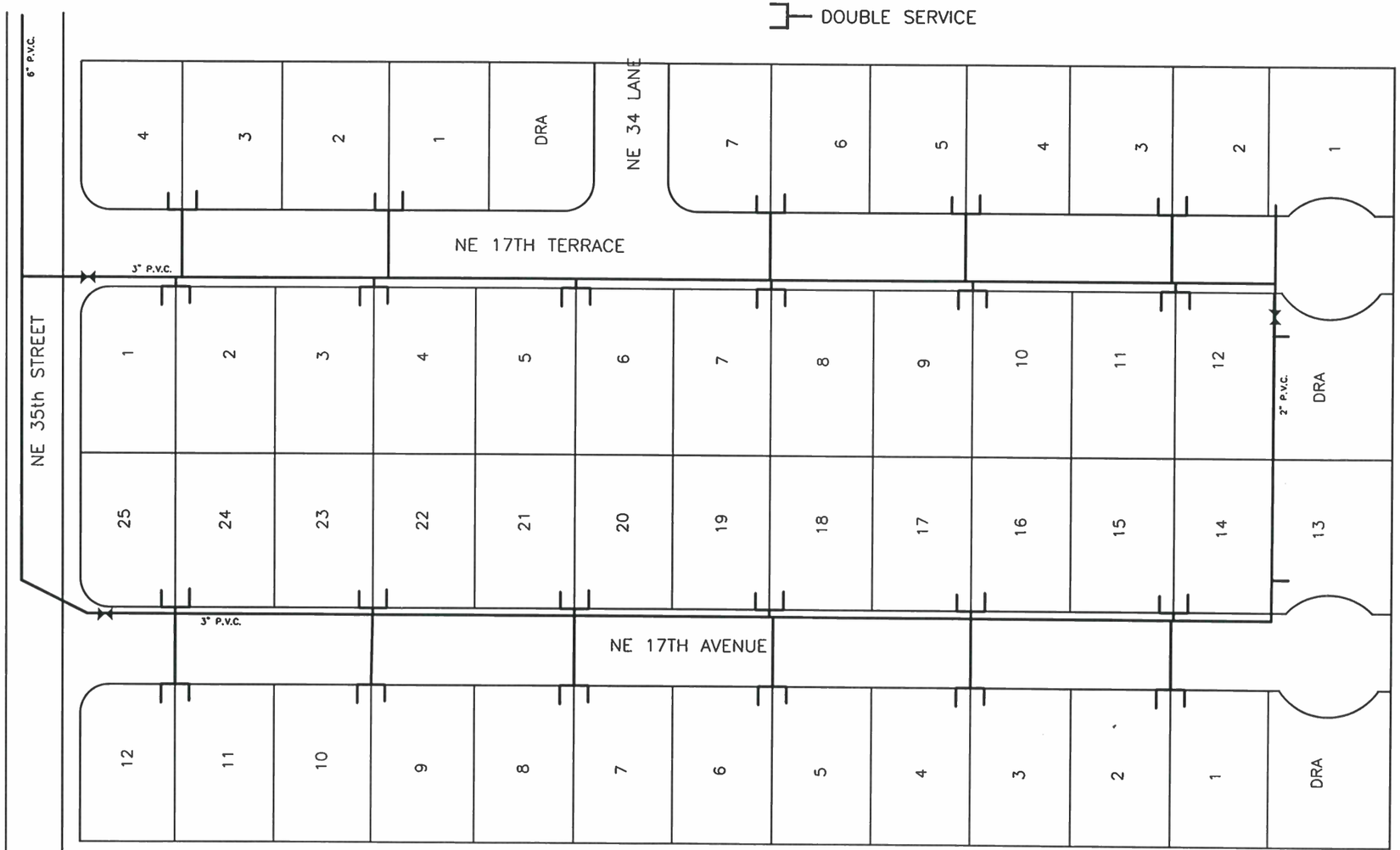
1

JASON'S LANDING
WATER DISTRIBUTION SYSTEM

LEGEND

- 6" P.V.C. — EXISTING WATER MAIN &SIZE
- WELL LOCATION
- 6" GATE VALVE
- BLOW-OFF VALVE
- SINGLE SERVICE
- DOUBLE SERVICE



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0 100 200

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JASON'S LANDING
SUNSHINE UTILITIES INC.
OCALA, FLORIDA

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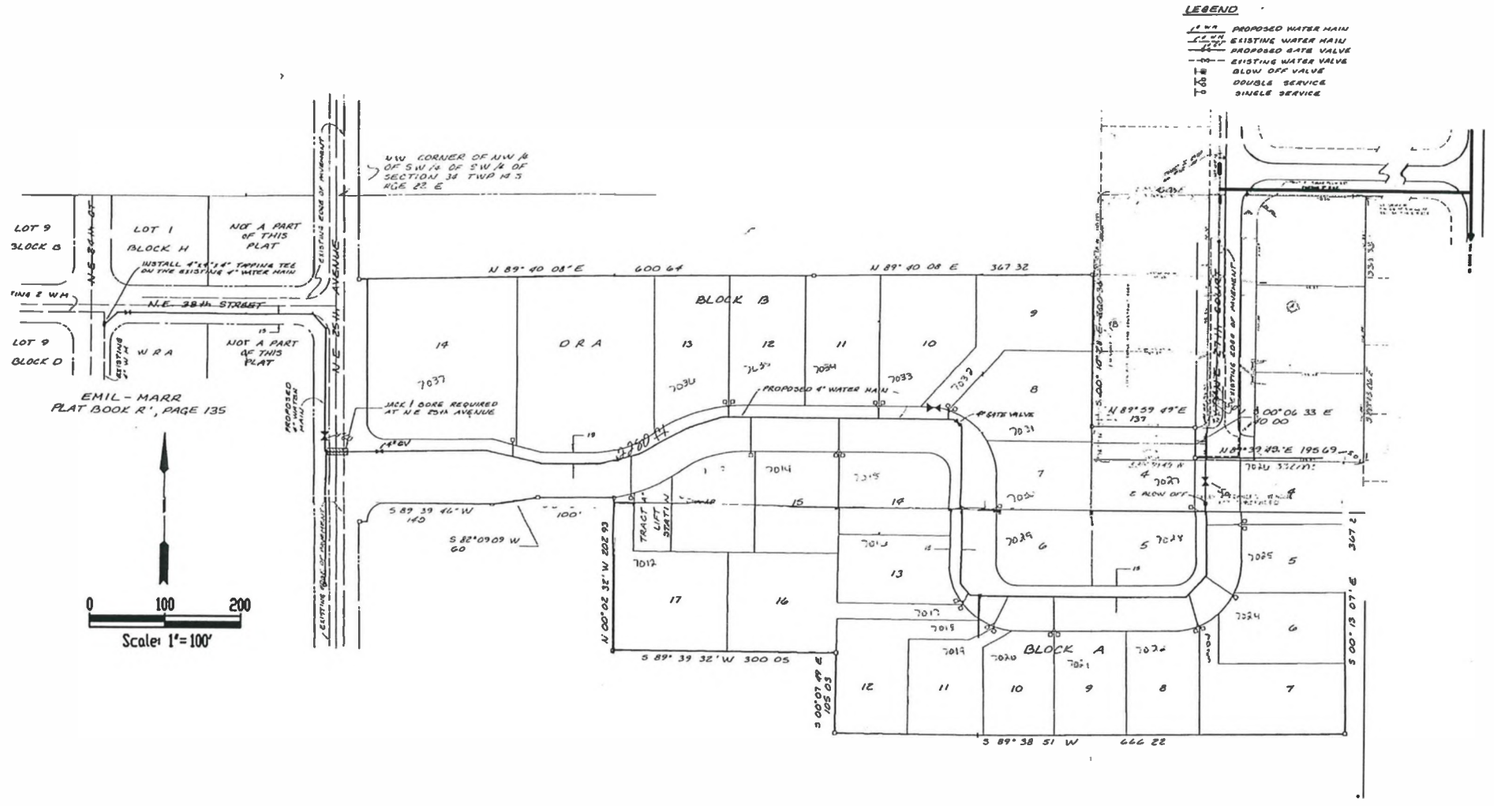

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PEARL BRITAIN ESTATES

SUNSHINE INDUSTRIES INC.

OCALA, FLORIDA

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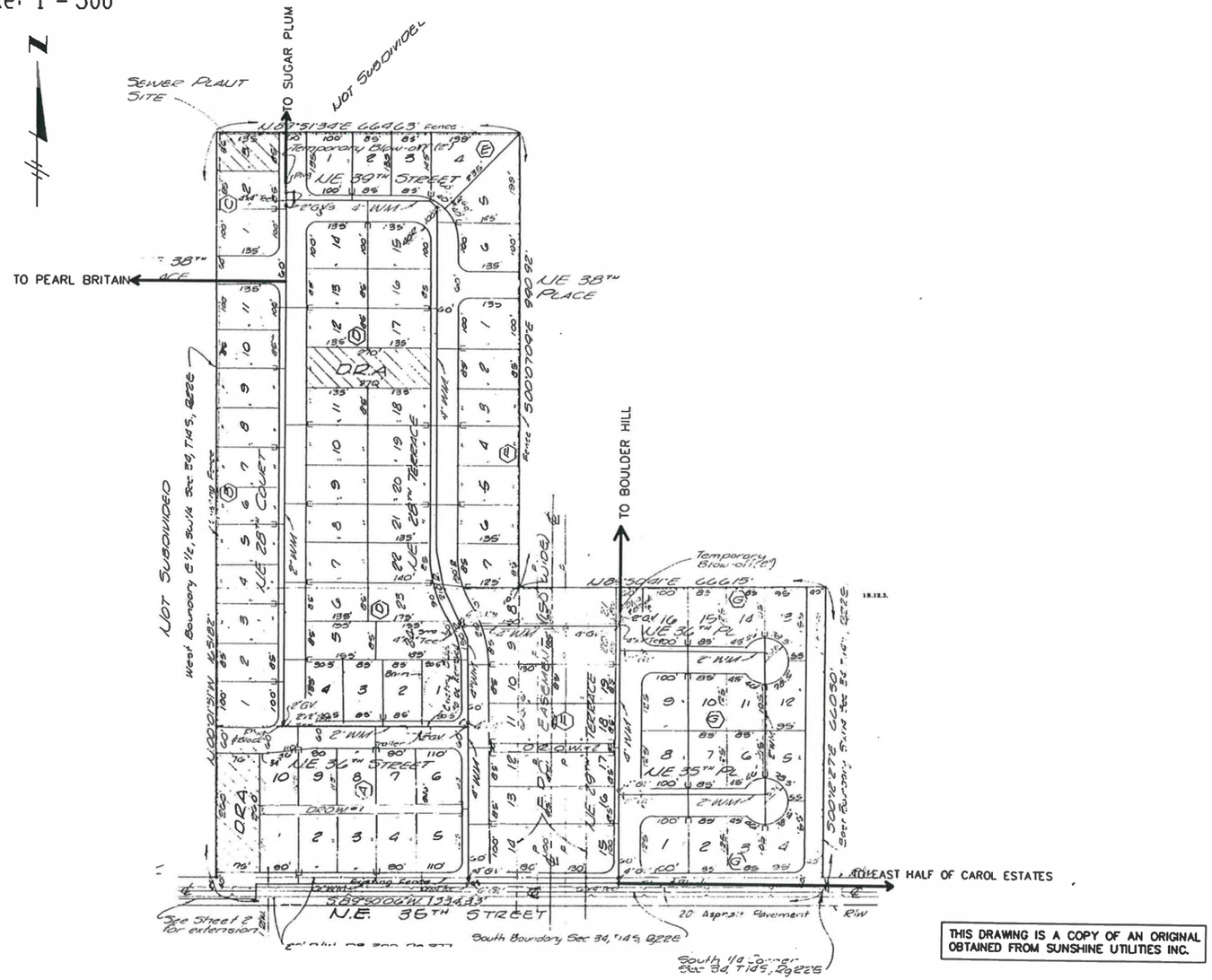

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STONE HILL

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

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PWM	HWB	11 APR 97	ORIGINAL ISSUE

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1

Sheet 1 Of 1

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Sunlight Acres Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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Figure 2-2: Source Meter

Figure 2-3: Path to Sunlight Acres System
Figure 2-4: Chlorine Treatment Bin
Figure 2-5: Storage Tank
Figure 2-6: Corroded Pump Starter Box
Figure 2-7: PIG Roll Top Hardcover Spill Pallet

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Appendix B: Tank Inspection Report
Appendix C: Emergency Response Plan
Appendix D: Consumer Confidence Report
Appendix E: Sanitary Survey Report
Appendix F: Distribution Map

1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Sunlight Acres. A summary of the main parameters for the water system are summarized below in Table 1-1.

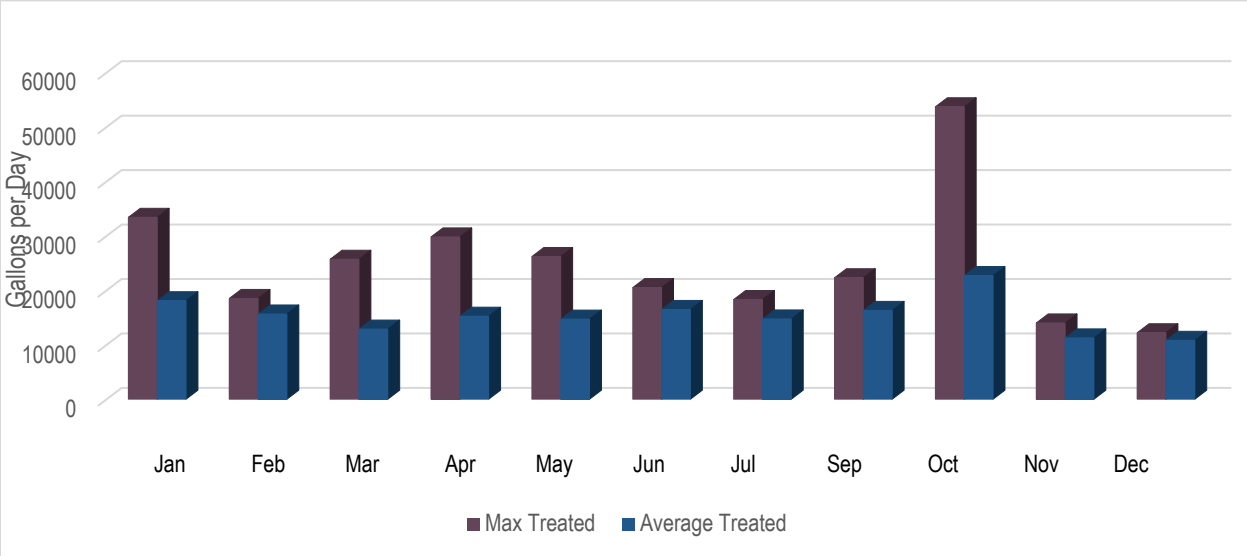
Table 1-1: Sunlight Acres Subdivision System Information

Water System Name	Sunlight Acres Subdivision
PWD ID Number	3421520
Classification	Community
Plant Category & Class	5D
Street Address	13035 SE 32nd Court
City, State	Belleview, Florida
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	198 (Sanitary Survey)
Number of Service Connections	79 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	15,348 GPD (2019 Monthly Reporting)
Maximum Day Water Use	53,700 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	180,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Sunlight Acers community is depicted in Figure 1-1.

Figure 1-1: Sunlight Acres Subdivision Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

Water is pumped from Well 1 though a 3-inch check valve and a 3-inch Sensus flow meter before going into the 2,000-gallon steel hydropneumatic tank. The well pump turns on when the pressure at the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 3-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	125 feet deep, 150 GPM	1983 (Sanitary Survey)	Fair
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	2,000 gallons, Steel	Approximately 1985 (Tank Inspection Report)	Poor

2.1.1 Source

The Sunlight Acres well is located near the tank within a locked fenced in area and is about 50 feet from SE 32nd Court down a dirt path in a forested area. The top of the well casing is 13 inches above grade and within a concrete pad. The well uses a submersible 150 GPM pump with a 10 HP motor at 230 Volts. The well has a sample tap and a vent with a check valve off the top of the well casing. Water then flows through a 3-inch Sensus meter. The well, meter, and path to the well is shown in Figure 2-1, Figure 2-2, and Figure 2-3.

There are no potential sources of contamination within 1000 feet of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

Figure 2-1: Well 1

Figure 2-2: Source Meter

Figure 2-3: Path to Sunlight Acres System

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is 1:5 of 10.5% chlorine to water and is housed in a 50-gallon drum for dilution and a 30-gallon plastic storage bin for distribution. The chemical pump is a diaphragm 12 GPD Uni-Dose Pump, set at 80% stroke. The chemical metering pump at the facility is shown in Table 2-2. The average distribution residual in 2019 was 1.0 mg/L.

The chlorine pump will turn on when the pump is energized. The chemical pump outlet is wired to the well pump starter.

Table 2-2: Sunlight Acres Chemical Metering Pumps

Chemical Pump	Chlorine
Brand	Uni-Dose
Model	U021-2811TT
Size	0.50 GPH

Figure 2-4: Chlorine Treatment Bin

2.1.3 Storage

The Sunlight Acres water treatment plant has a 2,000-gallon hydropneumatic storage tank on-site shown in Figure 2-5. The tank is plumbed with 3-inch isolation gate valves at the inlet and outlet of the tank with a 3-inch bypass line that is normally closed. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, during the inspection the tank was at 65 psi. The tank is not equipped

with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The storage tank was last inspected by Enviro-Tech, Inc. on November 24, 2020. The tank inspection report stated that the tank exterior appeared to be in fair condition and the interior was in poor condition. The tank interior had significant areas with no coating present and corrosion was noted throughout the tank interior. Refer to Appendix B for the Tank Inspection Report.

Figure 2-5: Storage Tank

2.1.4 Pump Station Building

There is no pump station building onsite. The plant is located is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, or PPE available on-site.

2.1.5 Back-Up Power

There is no emergency generator onsite or a quick-connect for portable generator. The Emergency Response Plan provided by Sunshine Utilities states there is standby power at the site, however this was not observed to be the case. Please refer to Appendix C for the 2013 Emergency Response Plan.

The system serves less than 350 people and has less than 150 service connections and is not required to have standby power per Florida Administrative Code 62-555.320 (14) (a).

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on July 28, 2020 and noted two deficiencies. One deficiency was related to no record that the drinking water flow meter had been calibrated and the other deficiency was for a late storage tank inspection. The facility returned to compliance on September 4, 2020 after a follow up inspection by FDEP. Please refer to Appendix E for the Sanitary Survey Report. The plant has received two violations within the past 10 years. Both violations were for monitoring and reporting of stage 2 disinfectants and disinfection byproducts on November 8, 2018, which the plant returned to compliance on November 26, 2018.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site, and it is recommended flood lights be installed to allow the site to be safely accessed at night.

The plant has no building or structure in place to house electrical equipment, logbooks, or chemical pumps. It is recommended to construct a building onsite to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level

The electrical panels and pump starter box onsite are badly corroded and need to be replaced as shown in Figure 2-6.

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-6), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

Figure 2-6: Corroded Pump Starter Box

2.3.2 Source of Supply

The system currently uses a sample tap and a vent with a check valve off the top of the well casing for its vent. This should be replaced with a screened vent to prevent the vent from being accidentally closed.

2.3.3 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted the tank interior to be in poor condition, with significant areas where the no coating was present. Corrosion was also noted throughout the interior walls. The tank is over fifteen years old, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

A blowoff valve located before the bypass line was leaking during the site inspection and should be replaced.

There are chemicals stored onsite have no secondary containment to protect against accidental release into the environment. There is a 55-gallon tank for chlorine mixing and a 30-gallon tank for chlorine distribution. The chlorine solution is stored in a trash bid as shown in Figure 2-4. The trash bid should be removed and chemical solution drum should be used for holding chlorine. The tanks should be stored on a pallet that can contain the total volume of the chemicals. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005.

To install secondary containment for the chemical storage, a structure will have to be installed to protect the secondary containment from filling with rainwater. In addition, a structure around the chemical drums will offer an added protection from damage. This can be accomplished by changing out all the tanks with a smaller 30-gallon tanks and storing the chemicals in an enclosed container such as the PIG Roll Top Hardcover Spill Pallet, with a 66-gallon containment capacity. An example is shown in Figure 2-7.

Figure 2-7: PIG Roll Top Hardcover Spill Pallet

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1983 and supplies water using 2 to 4-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed, according to the distribution map there are no blowoff valves. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes, and each home as its own aboveground meter located in the right of way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

The distribution map does not indicate any blowoff valves in the system. A blowoff valve should be installed along Eastern end of S.E. 32nd Ct. An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-end to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Sunlight Acres to normal operating conditions are summarized with cost estimates in Table 4-1 and Table 4-2. The total cost estimate for Triage Repairs at Sunlight Acres is: **$28,700**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$15,000
Mission Monitoring at Well	$10,000
Total	$26,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,700
Replace Leaking Blowoff Valve	$1,000
Total	$2,700

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Sunlight Acres to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-4 through Table 4-6. The total cost estimate for Capital Improvements at Sunlight Acres is: **$74,000**.

Table 4-3: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Interior Tank Coating	$5,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$16,500

Table 4-4: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$3,500
Total	$3,500

Table 4-5: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Insert Blowoff Valve	$2,000
Total	$29,000

Table 4-6: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

SUNLIGHT ACRES SUBDIVISION
SE 32ND CT
BELLEVIEW, FL 34420

Public Water System ID: 3421520
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 198
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 1

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5765	6" WELL 66'/125'	AAE0260	ACTIVE	125	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

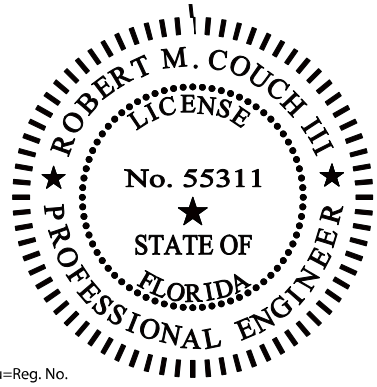
Sunlight Acres Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Sunlight Acres Subdivision
Street Address:	SE 32nd Court
City, State:	Belleview, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3421520
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	November 28, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
15290 SE Highway 42, PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2018.12.19 01:14:00 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on November 28, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 3.78 millimeters. UTM readings from the tank heads indicated an average thickness of 7.36 millimeters. The exterior coating of the tank appeared to be in overall good condition with no notable surface corrosion. The interior coating of the tank appeared to be in overall fair condition. There was no coating on significant areas of the tank interior and corrosion was noted on the tank floor and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 41 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 11'-11" (13'-5" including elliptical heads)
Diameter: 5'-3" outside diameter
Volume: 2,000 gallons with elliptical heads
Tank Age: Approximately 33 years
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had failed.

6.3 Ultrasonic Metal Thickness Testing

A total of 51 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 3.78 millimeters in the cylindrical section and 7.36 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 1/4" (6.35 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition. No lichens were growing on the tank exterior at the time of the inspection.

7.2 Tank Interior

The tank interior appeared to be in poor condition. There were significant areas with no coating present on the interior tank surface. There was corrosion noted throughout the tank interior.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 3.78 mm / (796 mm+0.6 x 3.78 mm)
= 0.284 MPa
= 41 psi

When:

t < 0.5R = 0.5 x 796 = 398 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 3.78 mm
R = inside radius of shell course under consideration (mm) = 796 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 41 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Sunlight Acres subdivision 2,000-gallon hydropneumatic pressure tank was performed on November 28, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as there was no interior coating present on significant portions of the interior.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed surface corrosion throughout significant portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 50 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

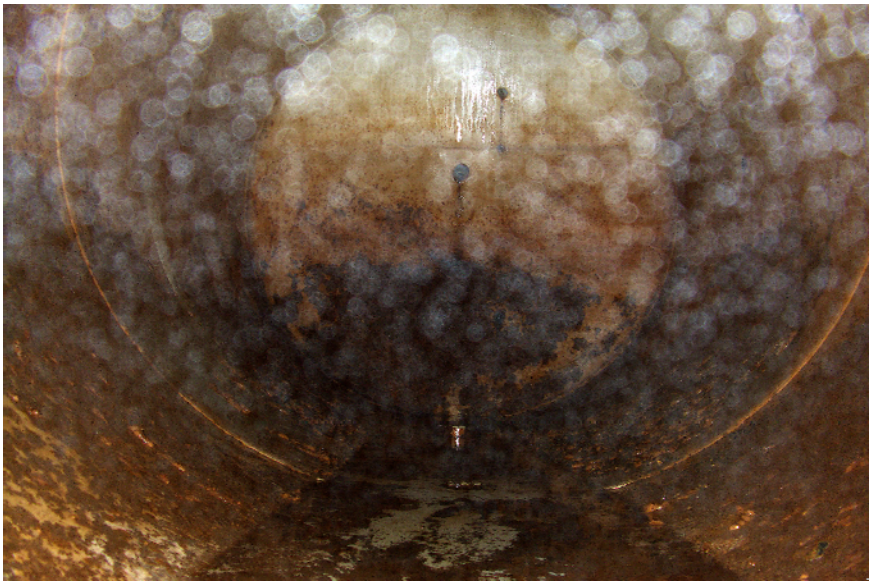
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 41 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 12/19/2018

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank



APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

SUNLIGHT ACRES

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	68
PWS:	3421520
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle ~ Suite 101 ~ Tallahassee
Telephone: 850-668-2746 ~ Fax: 850-893-4581
e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	SECO	352-237-4107		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(1) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The well is most vulnerable to above ground activities because it is only 125 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	15425 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	30 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3421520**	
System name and address	**Sunlight Acres**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**13035 se 32nd Ct**	
Population served and service connections.	Population =	Connections = 68
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	15425 GPD
Maximum Daily Demand (gpd)	18500 GPD
System Capacity (gpd)	180000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	13035 SE 32nd Ct			
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	125 FT			
Well Yield (gpd)	216000 GPD			
Pump Type	Submersible			
Manufacturer	Sta-Rite			
Capacity (gpm)	150 GPM			
Motor Manufacturer	Franklin			
Horsepower	10 HP			
Phase	3			
Volts/Amps	230 volts			

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Sunlight Acres Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3421520 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1,*** 2019, ***and ending December 31,*** 2019, to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012-0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019
Sunlight Acres Subdivision
Florida Department of Environmental Protection Public Water System ID # 3421520

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from one well located in the community. The well draws from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well. The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have "No Potential Sources of Contamination". You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR SUNLIGHT ACRES

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAR '18	No	1.1	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAR '18	No	0.0048	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	MAR '18	No	1.7	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	MAR '18	No	0.1	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	2.58	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	MAR '18	No	0.7	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	MAR '18	No	8.3	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	0.8	0.5 - 1.6	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	SEP '18	No	6.04	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)	SEP '18	No	4.47	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL '18	No	0.0625	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	JUL '18	No	2.9	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations for water quality. We are very proud to report that our water meets all federal and state requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019SunlightAcres.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

August 18, 2020

Dewaine Christmas, Owner
SE 32nd Court
Belleview, FL 34420
sunshineutl@aol.com

Re: Compliance Assistance Offer
Sunlight Acres Subdivision
#3421520
Marion County

Dear Mr. Christmas:

An inspection was conducted at your facility on July 28, 2020under the authority of Section 403.091, Florida Statutes (F.S.) . During this inspection, potential non-compliance with the requirements under Chapter 403, F.S., Chapter 62-555.350, Florida Administrative Code (F.A.C.), and Chapter 62-602.650, F.A.C. were observed. The purpose of this letter is to offer you compliance assistance as a means of resolving this/these matter(s).

Please see the attached inspection report for a full account of Department observations and recommendations. We request you review the item(s) of concern noted in the attached inspection report and respond in writing within **15 days** of receipt of this Compliance Assistance Offer. Your written response should either:

1. Describe what you have done or provide a time schedule to address the items of concern noted in the attached report (see “Deficiencies" section of the report)
2. Provide information that either mitigates the concerns or demonstrates them to be invalid, or
3. Arrange for one of our inspectors to visit your facility to discuss the item(s) of concern.

It is the Department’s desire that you are able to adequately address the items of concern so that this matter can be closed. Your failure to respond appropriately may result in the initiation of formal enforcement proceedings.

Please address your response and any questions to Ellia Ruggiero of the Central District Office at 407-897-4168 or via e-mail at Ellia.Ruggiero@floridadep.gov We look forward to your cooperation with this matter.

Sincerely,

David Smicherko, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report (with attachments)

cc: Ellia Ruggiero Ellia.Ruggiero@floridadep.gov
David Smicherko David.Smicherko@floridadep.gov

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **SUNLIGHT ACRES SUBDIVISON** County Marion PWS ID # **3421520**
Plant Location SE 32nd Court, Belleview, FL 34420 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida, Inc Phone 352-347-8228
Owner Address 10230 E Highwway 25, Belleview, FL 34420-5531
Contact Person Dewaine Christmas Title Operator Phone 352-347-8228
This Survey Date 7/28/2020 Last Survey Date 5/15/2015 Last Compliance Inspection Date N/A

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 180,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Chlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☒ No ☐ N/A

Number of Service Connections 79
Population Served 198 Basis Owner

OPERATION & MAINTENANCE LOG: Yes
Location WTP
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-0007459

Hrs/day: *Required* Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 15,329 gpd
Maximum Day (from MORs) 53,700 gpd 10/2019
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 2" Sensus
Date Last Calibrated Unknown*

RAW WATER SOURCE
☒ GROUND; Number of Wells 1
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Not Required
Source
Capacity of Standby (kW)
Switchover: ☐ Automatic ☐ Manual
Hrs Operated Under Load
What equipment does it operate?
☐ Well Pumps
☐ High Service Pumps
☐ Treatment Equipment
Satisfy avg. daily demand? ☐Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☐No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☐ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan N/A Date N/A
Comments

PWS ID # 3421520
Date 7/28/2020

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1(AAE0260)			
Year Drilled		1983			
Depth Drilled		125’			
Drilling Method		Cable Tool			
Type of Grout		Neat Cement			
Static Water Level		30’			
Pumping Water Level		Unknown			
Design Well Yield		Unknown			
Test Yield		Unknown			
Actual Yield (if different than rated capacity)		Unknown			
Strainer		Unknown			
Length (outside casing)		66’			
Diameter (outside casing)		6”			
Material (outside casing)		Black Steel			
Well Contamination History		None			
Is inundation of well possible?		No			
6’ X 6’ X 4” Concrete Pad		Yes			
SET BACKS	Septic Tank	N/A			
	Reuse Water	>200’			
	WW Plumbing	>200’			
	Other Sanitary Hazard	None			
PUMP	Type	Submersible			
	Manufacturer Name	Unknown			
	Model Number	Unknown			
	Rated Capacity (gpm)	150			
	Motor Horsepower	10			
Well casing 12” above grade?		Yes			
Well Casing Sanitary Seal		Yes			
Raw Water Sampling Tap		Yes			
Above Ground Check Valve		Yes			
Security		Yes			
Well Vent Protection		N/A			

COMMENTS _____

PWS ID # 3421520
Date 7/28/2020

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Pulsa Feeder Capacity 30 gpd
Chlorine Feed Rate 60% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 2.2 Remote 1.9
Remote tap location 13437 SE 32nd Court
DPD Test Kit: ☐ On-site ☐ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatics tank
Booster Pump Info N/A
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms: Loss of Cl_2 capability Loss of Cl_2 residual Cl_2 leak detection	 ☐ ☐ ☐	 ☐ ☐ ☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H1		
Capacity (gal)	2,000		
Material	Steel		
Gravity Drain	Yes		
By-Pass Piping	Yes		
Protected Openings	Yes		
Sight Glass or Level Indicator	No		
PRV/ARV	PRV		
Pressure Gauge	Yes		
On/Off Pressure	Yes		
Access Secured	40/60		
Access Manhole	Yes		
Tank Sample Tap Location	Yes		
Date of Inspection	06/2013		
Date of Cleaning	06/2013		

Comments *Tank inspection due every five years. No record of up to date tank inspection noted at the time of inspection.

HIGH SERVICE PUMPS

Pump Number			
Type			
Make			
Model			
Capacity (gpm)			
Motor HP			
Date Installed			

Comments

PWS ID # 3421520
Date 7/28/2020

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
No record that the calibration of the finished-drinking-water flow meter has been checked.	62-555.350(2)	The calibration of finished-drinking-water flow meters should be checked at least once every 5 years.		No
Finished drinking water tank(s) has been inspected by a licensed engineer but not within the required 5-year time period.	62.555.350(2)	Have future tank inspections completed at least once every 5 years.		No

MONITORING REMINDER:

- Monitoring schedules are available on the Central District's FTP site: ftp://ftp.dep.state.fl.us/pub/outgoing/Water/

COMMENTS:

- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

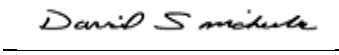
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature

Ellia Ruggiero
Printed Name

Environmental Specialist
Title

7/28/2020
Date



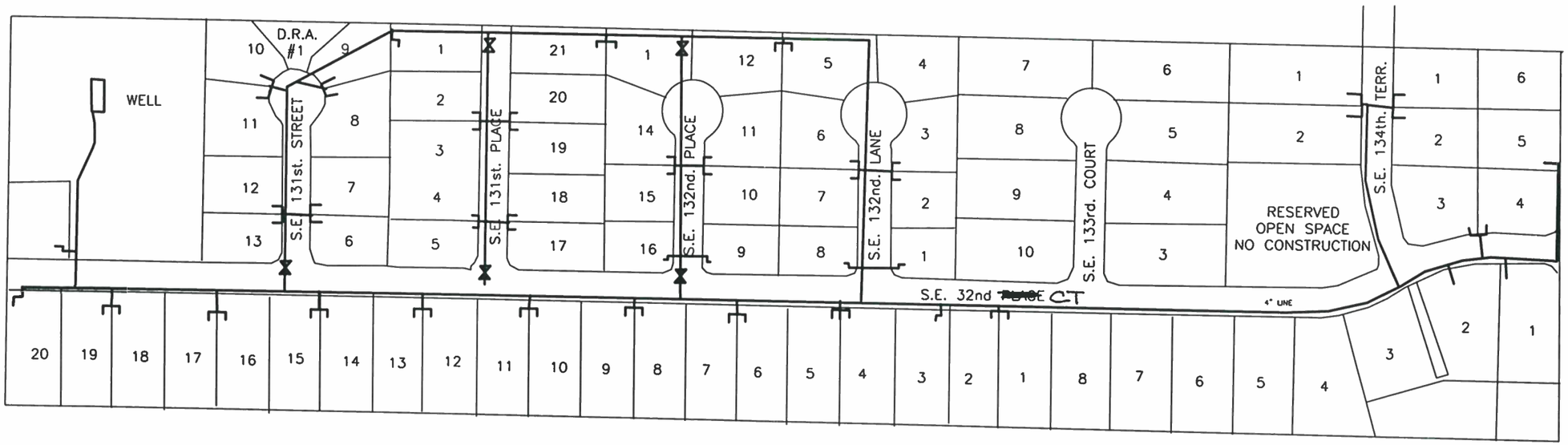
Reviewer Signature

David Smicherko
Printed Name

Environmental Manager
Title

8/18/2020
Date

APPENDIX F: DISTRIBUTION MAP



THIS DRAWING IS A COPY OF AN ORIGINAL DONE BY SPRINGSTEAD AND ASSOC. INC.

H.W. BARRINEAU & ASSOCIATES, INC.
8100 SOUTHEAST 17th. ST, SUITE 108
OCALA, FLORIDA 34471
PH. (352) 840-8580
FAX (352) 840-9774

SUNLIGHT ACRES

SUNSHINE UTILITIES INC.
FT. KING & MAIN
OCALA, FLORIDA

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Sheet 1 Of 1

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COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Whispering Sands Subdivision

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COMMITMENT & INTEGRITY DRIVE RESULTS

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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Whispering Sands. A summary of the main parameters for the water system are summarized below in Table 1-1.

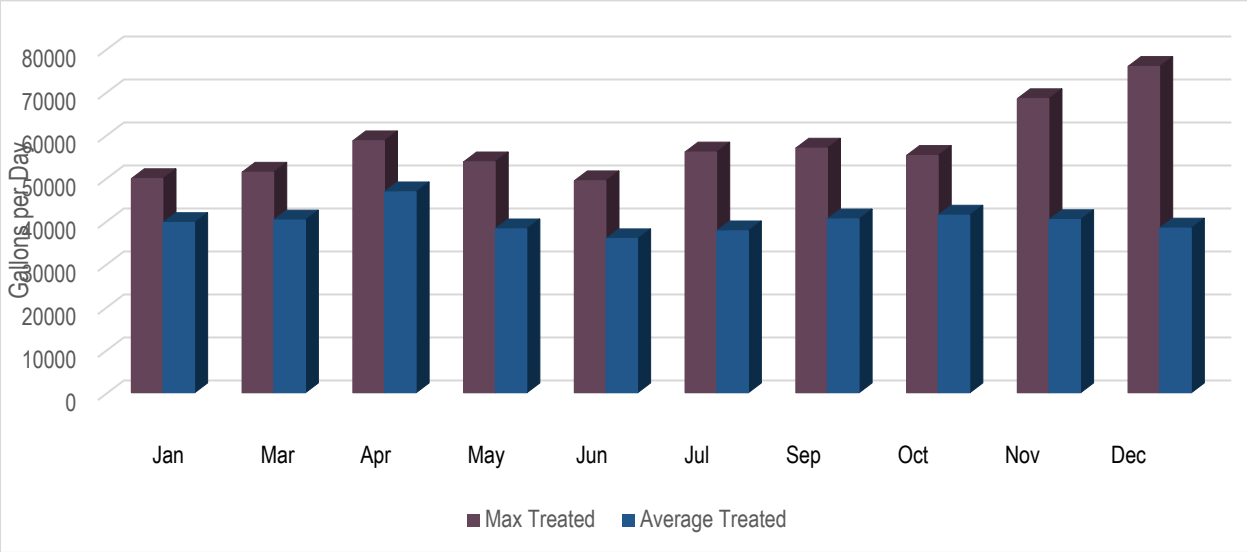
Table 1-1: Whispering Sands System Information

Water System Name	Whispering Sands Subdivision
PWD ID Number	3424009
Classification	Community
Plant Category & Class	5D
Street Address	3030 SE 50th Ct.
City, State	Ocala, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	437 (Sanitary Survey)
Number of Service Connections	125 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	39,842 GPD (2019 Monthly Reporting)
Maximum Day Water Use	75,900 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	228,960 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Whispering Sands community is depicted in Figure 1-1.

Figure 1-1: Whispering Sands Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two water wells onsite, Well 1 and Well 2. Water is pumped from Well 1 through a 3-inch check valve then a 3-inch Neptune flow meter. Water is pumped from Well 2 through a 3-inch Octave flow meter and a 3-inch check valve. The two sources combine into the 10,000 gallons storage tank then out to distribution. The well turns on when pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection after going through their respective check valves. There is a 6-inch bypass line for the tank that is normally closed. Water exits the tank on the opposite side from where it enters and out to the distribution system.

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	132 feet deep, 115 GPM	1979 (Sanitary Survey)	Fair
Source	Well 2	128 feet deep, 150 GPM	1983 (Sanitary Survey)	Fair
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	10,000 gallons, Steel	Unknown	Fair
Generator	Generac	20 kW	2004 (Generator Information Plate)	Fair
Building	Wood	23 by 11 Feet	Unknown	Fair

2.1.1 Source

The Whispering Sands well is located within a locked fenced in 5 feet from the pump station building and 30 feet from SE 50th Ct. The top of the well casing is 12 inches above grade and within a concrete pad. The well is 132 feet deep with a submersible Sta-rite 115 GPM pump with a 7.5 HP motor. Well 1 has a sample tap and a screened vent with a check valve on the top of the well, and a 3-inch Neptune meter. Well 1 acts as the lead well, so it supplies most of the community water demands. The well and meter are shown in Figure 2-1 and 2-2.

Figure 2-1: Well 1

Figure 2-2: Well 1 Source Meter

Well 2 is located 30 feet from Well 1 in a separate fenced in area. The well is 14 inches off the ground and within a concrete pad. The well is 128-feet deep with a submersible 150 GPM pump with a 7.5 HP motor. Well 2 has a sample tap, a screened vertical vent on top of the well, and a 3-inch Octave meter. Well 2 acts as the "lag" well, so it only supplies water if the community water demands are greater than what Well 1 can provide. The well and meter are shown in Figure 2-3.

Figure 2-3: Well 2

There are no potential sources of contamination within 1000 feet of either of the wells at the water treatment plant. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is 1:3 of 10.5% chlorine to water and is stored in two 35-gallon drums located next to the pump station building, one tank for each well onsite, shown in Figure 2-4. The chlorine is injected into the water supply by two pumps, a Unidose 24 GPD diaphragm pump set at 50% stroke for well 1 and a Chemtech 15 GPD diaphragm pump set at 25% stroke for well 2. The chemical metering pumps at the facility is shown in Table 2-2. The average distribution residual in 2019 was 1.3 mg/L.

The chlorine pumps will turn on when their respective pump is energized. Each chemical pump outlet is wired to their respective well pump starter.

Table 2-2: Whispering Sands Chemical Metering Pumps

Chemical Pump	Chlorine (Well 1)	Chlorine (Well 2)
Number of Pumps	1	1
Brand	Uni-dose	Chem-Tech
Model	Missing	X015-XA-AAAFXXX
Size	24 GPD	15 GPD

Figure 2-4: Chlorine Treatment

2.1.3 Storage

The water treatment plant has a 10,000-gallon steel hydropneumatic storage tank on-site shown in Figure 2-5. The tank is plumbed with 6-inch isolation gate valves at the inlet and outlet of the tank with a 6-inch bypass line that is normally closed, and a tank drain located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chlorine

pumps. The tank is equipped with a sight tube and pressure gauge for quick reference, and the pressure recorded during the site inspection was 45 psi. The tank is not equipped with an air compressor, and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. on January 10, 2019 and stated that the tank exterior appeared to be in fair structural condition. The interior coating was in fair condition with minor areas where the coating had begun to fail, and corrosion had formed on the tank interior surface. Please refer to Appendix B for the 2019 Tank Inspection Report.

Figure 2-5: Storage Tank

2.1.4 Pump Station Building

The pump station building is a 23 by 11-foot wooden building primarily used for storage of the chemical treatment, facility logbook and electrical equipment, shown in Figure 2-6 and 2-7. The building has a single door which opens in and has a width of 3 feet. The building is within a fence with a locked gate and has lighting indoors, but has no fire extinguisher, floor drains, chemical containment, or PPE on-site. The building was used as a weight room for one of the operators who lived in the area.

Figure 2-6: Pump Station Building

Figure 2-7: Pump Station Building Interior

2.1.5 Back-Up Power

The Whispering Sands plant has a 20 kW Generac generator unit onsite to power the well pumps if there is an interruption in power supply, shown in Figure 2-8. The generator is exercised one hour per week by an automatic exerciser, and the site is equipped with an automatic transfer switch. The generator runs on propane and is supplied by a 120-gallon propane tank. The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-8: Back-up Power Generator

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There were no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on November 19, 2020 and had one deficiency. The report stated that the MOR data was missing from April 18, 2020 through September 25, 2020 because of a broken flow meter. The facility was brought back into compliance on September 25, 2020 by repairing the flow meter. Refer to Appendix E for the most recent Sanitary Survey Report. According to the Florida Department of Environmental Protection's database, the Whispering Sands plant has received no violations since 2010.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site. Floodlights should be installed to allow the site to be safely accessed at night.

It is recommended that the building be upgraded to protect sensitive equipment from weather and tampering.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components, replacement may be needed for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the

site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

2.3.2 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted that the interior coating was in fair condition with minor areas where the coating had begun to fail, and corrosion had formed on the tank interior surface. The tank age is unknown; however, it is likely older than fifteen years. The tank interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

There are chemicals stored onsite that have no secondary containment to protect against accidental release into the environment. Currently there are two 35-gallon tanks for chlorine. These containers should be stored on a secondary containment pallet that can contain the total volume of the chemicals. The containers are also located very close to the well head. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by changing out the chemical storage tanks to have more compact 30-gallon drums and storing the chemicals in an enclosed container such as the PIG PAK 604 containment pallet with a 66-gallon containment capacity and keep it stored in the pump station building. An example is shown in Figure 2-9.

Figure 2-9: PIG 66-Gallon Containment Pallet

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in 1979 and supplies water using a 2 to 6-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections if needed located at most roadway intersections. The system provides the community with potable water only (no fire flow water). Sunshine utility representatives stated that there are blowoff valves on most dead ends in the system, although these are not shown on the distribution map. Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter in the public right-of-way near the road. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant but there are many vacant lots.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Whispering Sands to normal operating conditions are summarized with cost estimates in Tables 4-1 and 4-2. The total cost estimate for Triage Repairs at Whispering Sands is: **$37,000**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$25,000
Mission Monitoring at Well	$10,000
Total	$36,000

Table 4-2: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,000
Total	$1,000

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Whispering Sands to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-5. The total cost estimate for Capital Improvements at Sunlight Acres is: **$73,500**.

Table 4-3: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Interior Tank Coating	$8,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$19,500

Table 4-4: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Insert Blowoff Valve	$2,000
Total	$29,000

Table 4-5: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Total	$25,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

WHISPERING SANDS S/D
SE 50TH CT & SE 30TH ST
OCALA, FL 34471

Public Water System ID: 3424009
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: SUBDIVISION
Population Served: 437
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
5786	6" WELL/132' 310GPM	AAE0278	ACTIVE	132	Floridan Aquifer
5787	WELL#2 6"WELL 120'/128'150GPM	AAE0279	ACTIVE	128	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

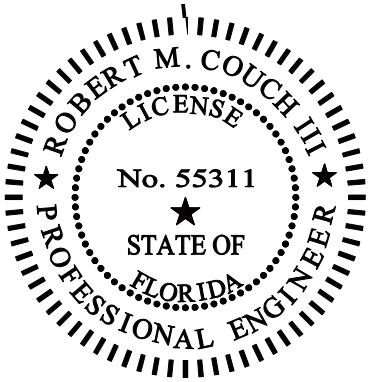
Whispering Sands Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Whispering Sands
Street Address:	SE 30th Street/SE 50th Avenue
City, State:	Ocala, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424009
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	January 10, 2019

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.02.07 21:29:44 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on January 10, 2019 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 9.34 millimeters. UTM readings from the tank heads indicated an average thickness of 8.55 millimeters. The exterior coating of the tank appeared to be in overall fair condition with no notable surface corrosion. The interior coating of the tank appeared to be in fair condition with minor surface corrosion beginning to form along the tank ridge and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 29'-0" (33.'-0" including elliptical heads)
Diameter: 7'-6" outside diameter
Volume: 10,000 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail along portions of the tank ridge and walls..

6.3 Ultrasonic Metal Thickness Testing

A total of 72 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 9.34 millimeters in the cylindrical section and 8.55 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/8" (9.53 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition.

7.2 Tank Interior

The tank interior appeared to be in fair condition. there were minor areas where the coating had begun to fail and corrosion had formed on the interior tank surface.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 9.34 mm / (1134 mm+0.6 x9.34 mm)
= 0.492 MPa
= 71 psi

When:

t < 0.5R = 0.5 x 1134 = 566.83 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 9.34 mm
R = inside radius of shell course under consideration (mm) = 1,134 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Whispering Sands 10,000-gallon hydropneumatic pressure tank was performed on January 10, 2019. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already begun to fail.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 65 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

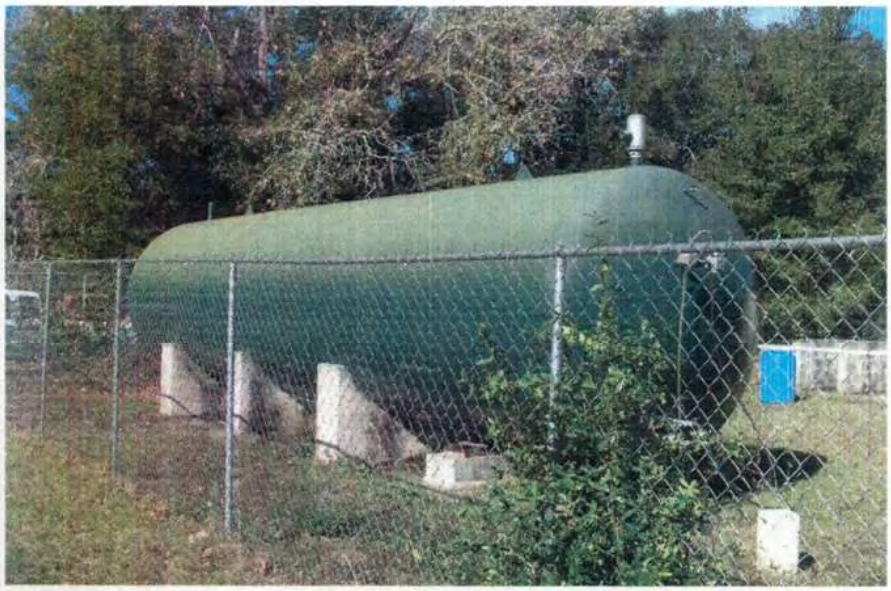
- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

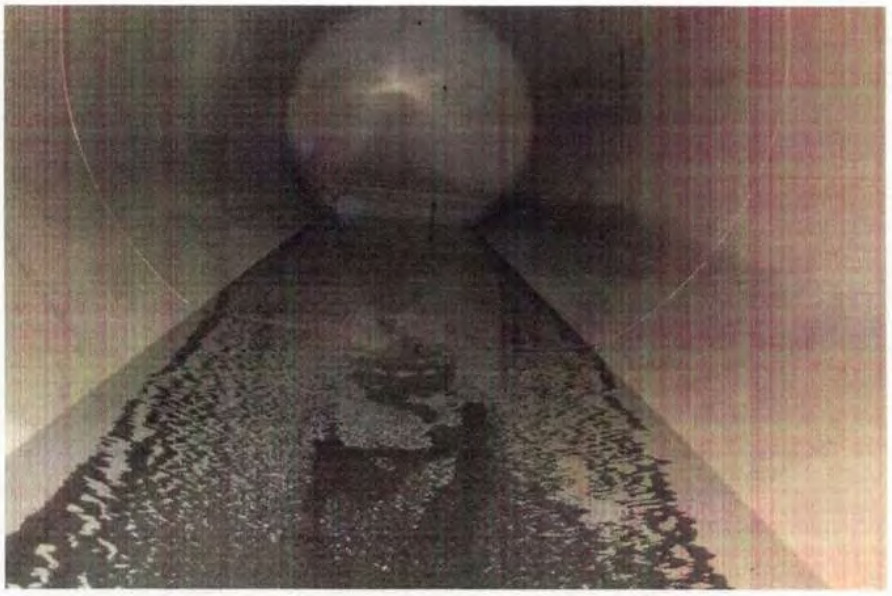
Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 60 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M. Couch III Date: 2/7/2019

Robert M. Couch III, P.E. Registration No. 55311

Exterior and interior views of tank





APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities

WHISPERING SANDS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	127
PWS:	3424009
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	City of Ocala	352-629-2489		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(2) 6" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 132 and 128 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	50849 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	15 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424009**	
System name and address	**Whispering Sands**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**3030 SE 50th Ct**	
Population served and service connections.	Population =	Connections = 127
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	50849 GPD
Maximum Daily Demand (gpd)	72999 GPD
System Capacity (gpd)	228960 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	3030 SE 50th Ct	3030 SE 50th Ct		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	132 FT	128 FT		
Well Yield (gpd)	165600 GPD	165600 GPD		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta-Rite		
Capacity (gpm)	115 GPM	115 GPM		
Motor Manufacturer	Franklin	Franklin		
Horsepower	7.5 HP	7.5		
Phase	3	3		
Volts/Amps	230 volts	230 Volts		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Whispering Sands Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424009 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers. (To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org

☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

■ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.

Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

■ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ■ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ■ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ■ Yes ☐ No ■ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

■ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012- 0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Whispering Sands

Florida Department of Environmental Protection Public Water System ID # 3424009

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

The source of our water is groundwater from two wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated no potential sources of contamination near our wells. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WATER QUALITY TEST RESULTS FOR WHISPERING SANDS

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228	(pCi/L)	JUL'15	No	1.5	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	NOV '18	No	0.5	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	NOV '18	No	0.0005	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	(ppb)	NOV '18	No	2.2	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	(ppm)	NOV '18	No	0.18	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nitrate (as Nitrogen)	(ppm)	DEC '19	No	3.1	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	(ppb)	NOV '18	No	0.9	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	(ppm)	NOV '18	No	10	N/A	N/A	160	Salt water intrusion; leaching from soil

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.3	0.8 - 1.6	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	SEP '19	No	0.91	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethane (TTHM)	(ppb)		No	0.90	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	JUL' 18	No	0.265	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019WhsperingSands.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

December 15, 2020

Dewaine Christmas, Owner
Sunshine Utilities of Central Fl, Inc.
10230 SW Hwy 25
Belleview, FL 34420
sunshineutl@aol.com

Re: Whispering Sands Subdivision
PW Facility ID #3424009
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection and a file review of the above-referenced facility on November 19, 2020. Based on the information provided during the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Miranda Rothenberger at 407-897-4301 or via e-mail at Miranda.Rothenberger@FloridaDEP.gov.

Sincerely,

Daniel K. Hall, Manager
Central District
Florida Department of Environmental Protection

Enclosure: November 19, 2020 Inspection Report

cc: Miranda Rothenberger, FDEP

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **WHISPERING SANDS SUBDIVISION** County Marion PWS ID # **3424009**
Plant Location SE 50th Ct & SE 30th St, Ocala, Florida 34471 Phone 352-347-8228
Owner Name Sunshine Utilities of Central Florida Inc Phone 352-347-8228
Owner Address 10230 SE US Hwy 25, Belleview, Florida 34420
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 11/19/2020 Last Survey Date 01/23/2018 Last Compliance Inspection Date 08/29/2014

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 228,960 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Subdivision
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 125
Population Served 437 Basis MOR

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7459

Hrs/day: *Required* *Visit *Actual* Visit
Days/wk: *Required* 3 *Actual* 5
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments *3 visits/week on nonconsecutive days for a total of 0.3 hour/week.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☐ No ☒ Yes ☐ N/A
Average Day (from MORs) 21,799 gpd
Maximum Day (from MORs) 77,900 gpd 01/2020
Comments Flow meter broken April 18, 2020 – September 25, 2020. No flow data recorded.

Flow Measuring Device Flow Meter
Meter Size & Type Neptune 3" // Master Meter 3"
Date Last Calibrated 08/04/2016 //08/18/2016

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Generac Power System
Capacity of Standby (kW) 34
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 0 hr/wk.
What equipment does it operate?
☒ Well Pumps Both
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒ Yes ☐ No ☐ Unknown
Audio-visual alarm? ☒ Yes ☐ No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A
Isolation Valve Exercise	☐ Yes	☐ No	☒ N/A
Records	☐ Yes	☐ No	☒ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None reporting # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date 02/10/2010
Comments

PWS ID # 3424009
Date 11/19/2020

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		**1(AAE0278)**	**2(AAE0279)**		
Year Drilled		1979	1983		
Depth Drilled		132’	128’		
Drilling Method		Cable tool	Combination		
Type of Grout		Neat cement	Neat cement		
Static Water Level		42’	42’		
Pumping Water Level		Unknown	Unknown		
Design Well Yield		Unknown	Unknown		
Test Yield		Unknown	Unknown		
Actual Yield (if different than rated capacity)		Unknown	Unknown		
Strainer		Unknown	Unknown		
Length (outside casing)		105’	Unknown		
Diameter (outside casing)		6”	6”		
Material (outside casing)		Black steel	Black steel		
Well Contamination History		None	None		
Is inundation of well possible?		No	No		
6’ X 6’ X 4” Concrete Pad		Yes	Yes		
SET BACKS	Septic Tank	>200’	>200’		
	Reuse Water	N/A	N/A		
	WW Plumbing	>100’	>100’		
	Other Sanitary Hazard	None observed	None observed		
PUMP	Type	Submersible	Submersible		
	Manufacturer Name	Sta-Rite	Sta-Rite		
	Model Number	Unknown	Unknown		
	Rated Capacity (gpm)	115	150		
	Motor Horsepower	7.5	7.5		
Well casing 12” above grade?		Yes	Yes		
Well Casing Sanitary Seal		Yes	Yes		
Raw Water Sampling Tap		Yes	Yes		
Above Ground Check Valve		Yes	Yes		
Security		Yes	Yes		
Well Vent Protection		Yes	Yes		

COMMENTS _____

PWS ID # 3424009
Date 11/19/2020

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem Tech /Unidose Capacity 15/12 gpd
Chlorine Feed Rate 100%
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 0.53 Remote 0.38
Remote tap location 2921 SE 62nd
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info
Comments

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms:			
Loss of Cl_2 capability	☐	☐	
Loss of Cl_2 residual	☐	☐	
Cl_2 leak detection	☐	☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type Capacity
Aerator Condition
Visible Algae Growth
Protective Screen Condition
Frequency of Cleaning
Date Last Inspected/Cleaned
Comments

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H	
Capacity (gal)	10,000	
Material	Steel	
Gravity Drain	Yes	
By-Pass Piping	Yes	
Protected Openings	Yes	
Sight Glass or Level Indicator	Yes	
PRV/ARV	PRV	
Pressure Gauge	Yes	
On/Off Pressure	40/60	
Access Secured	Yes	
Access Manhole	Yes	
Tank Sample Tap Location	On tank	
Date of Inspection	01/2019	
Date of Cleaning	01/2019	

Comments

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
MOR data missing [April 18, 2020 through September 25, 2020]	62-555.350(12)(b)	Repair or replace flow meter.	09/25/20	No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2020 results have not been received, early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2021, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2021.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

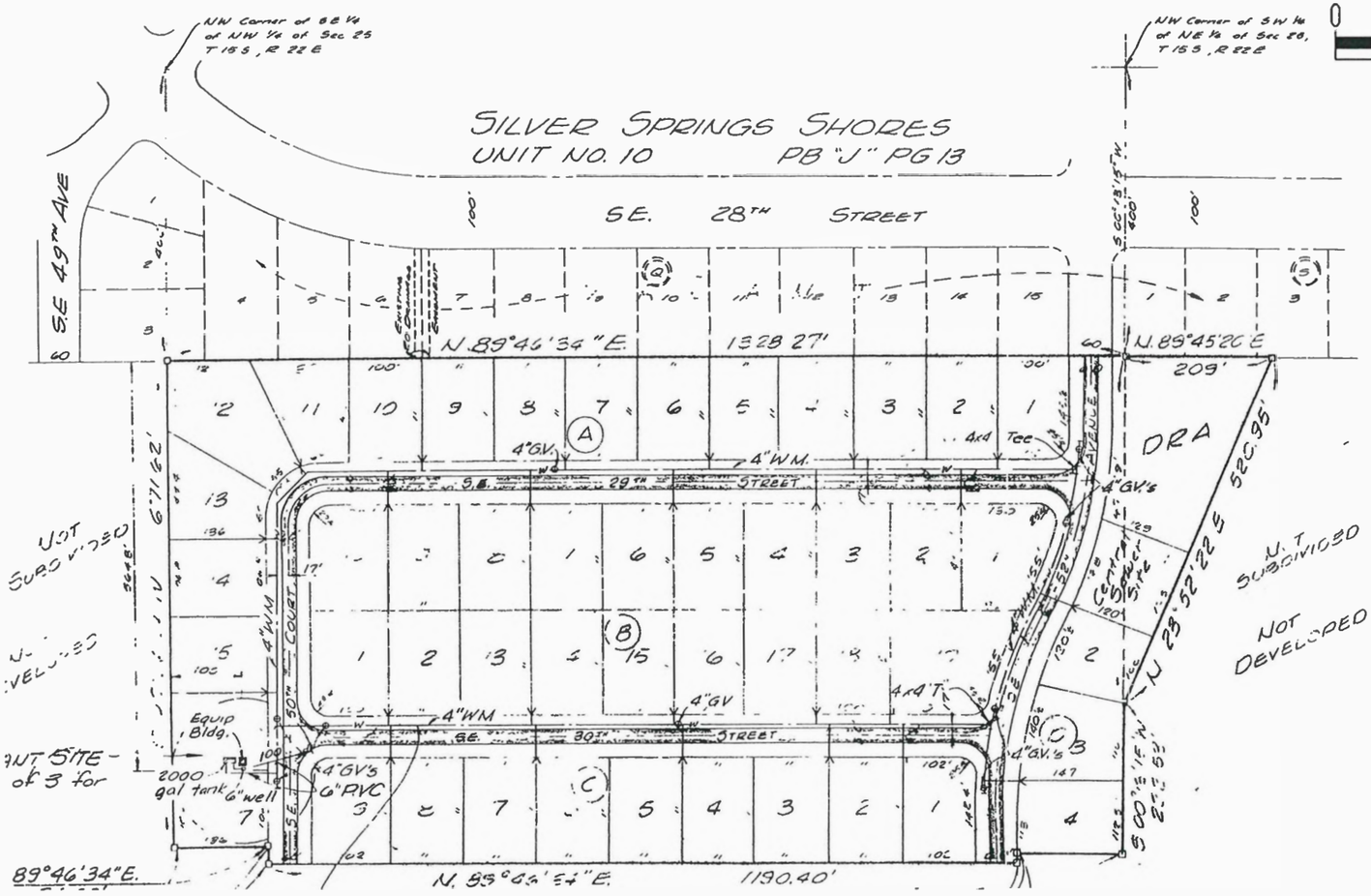
- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

M E Rothenberger	Daniel K Hall
Inspector Signature	*Reviewer Signature*
Miranda Rothenberger	Daniel K. Hall
Printed Name	*Printed Name*
Environmental Specialist	Environmental Manager
Title	*Title*
12/11/20	December 15, 2020
Date	*Date*

APPENDIX F: DISTRIBUTION MAP



H. W. BARRINEAU & ASSOCIATES, INC.
3100 SOUTHEAST 17th ST. SUITE 600 OCALA, FLORIDA 34471
PHONE (352) 840-0600 FAX (352) 840-9774

Sands

WHISPERING PINES UNIT 1

SUNSHINE UTILITIES INC.

OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMW	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9836-02

1

Sheet 1 of 2

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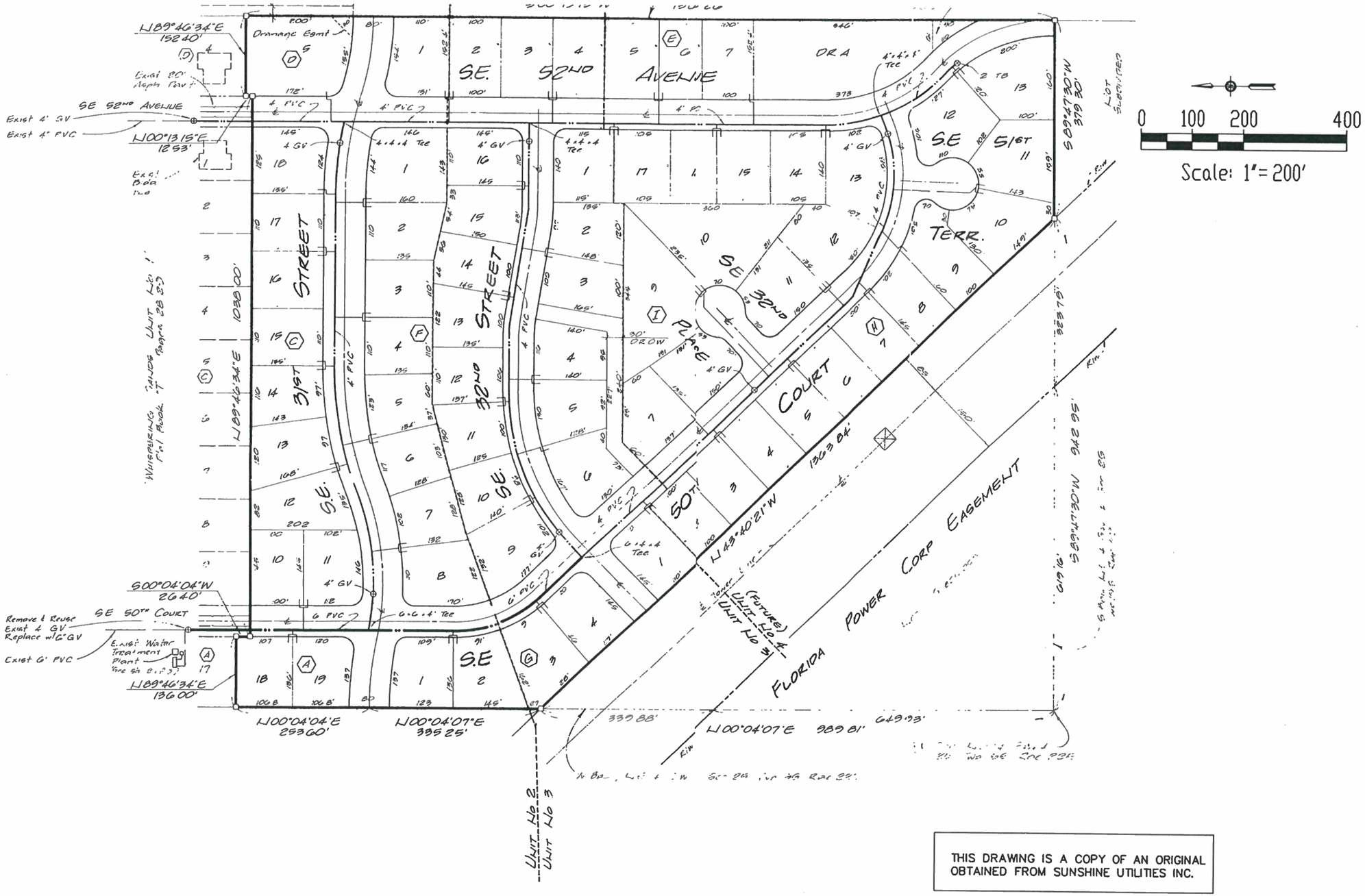

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H. W. BARRINEAU & ASSOCIATES, INC.
3100 SOUTHEAST 17TH ST, SUITE 202
OCALA, FLORIDA 34471
PH (352) 840-0600
FAX (352) 840-0774

WHISPERING SANDS UNIT 2

SUNSHINE INDUSTRIES INC.

OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9838-02

Sheet 2 of 3

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WATER SYSTEM ASSESSMENT

Winding Waters Subdivision

210 South Florida Avenue | Suite 220
Lakeland, Florida 33801
800.426.4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0233748.01
CSWR
July 2021

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1. INTRODUCTION

1.1 General System Information

Sunshine Utilities owns and operates a community, public water system to serve Winding Waters. A summary of the main parameters for the water system are summarized below in Table 1-1.

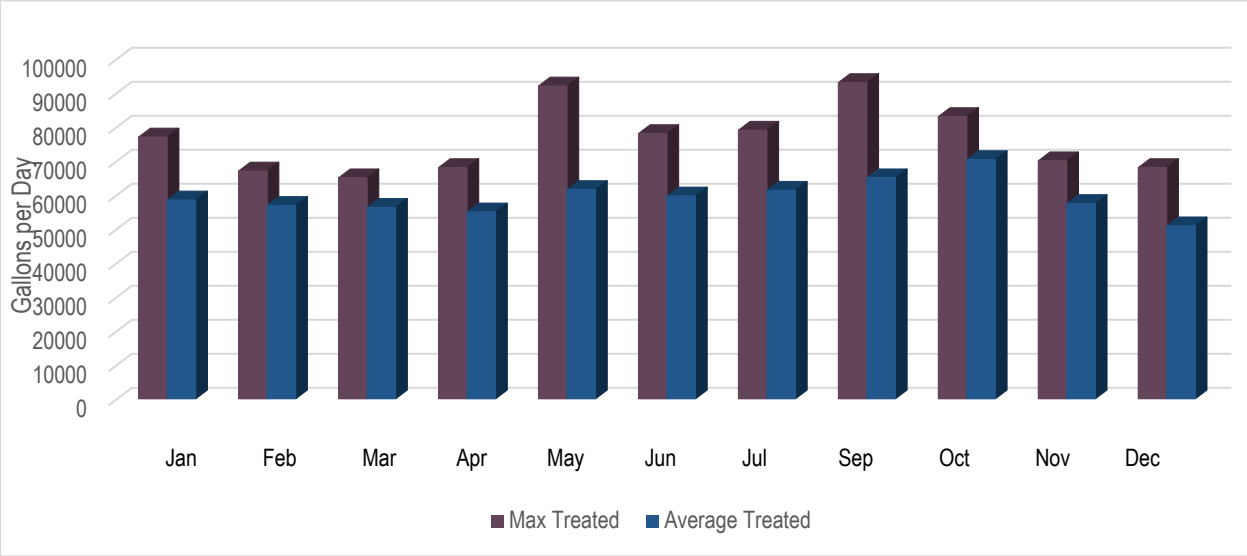
Table 1-1: Winding Waters System Information

Water System Name	Winding Waters
PWD ID Number	3424691
Classification	Community
Plant Category & Class	5D
Street Address	5855 SE 183rd Ave
City, State	Ocklawaha, FL
County	Marion
Owner	Sunshine Utilities
Contact	Dewaine Christmas
Population Served	473 (Sanitary Survey)
Number of Service Connections	189 (Sanitary Survey)
Pending Developments	None (Sunshine Utilities)
Average Day Water Use	59,346 GPD (2019 Monthly Reporting)
Maximum Day Water Use	93,000 GPD (2019 Monthly Reporting)
Max-Day Design Capacity	240,000 GPD (Sanitary Survey)
Water Source	Ground (Floridan Aquifer)
Storage and Pressure Regulation	Hydropneumatic Tank

1.2 Water Use

Potable water usage in the Winding Waters community is depicted in Figure 1-1.

Figure 1-1: Winding Waters Average Water Use 2019



Source: 2019 Monthly Reporting

2. WATER TREATMENT FACILITY

2.1 Facility Description

The plant has two water wells onsite, Well 1 and Well 2. Water is pumped from Well 1 through a swing check valve and into a 4-inch flow meter, 4-inch butterfly valve before going into the 10,000-gallon steel hydropneumatic tank. Water is pumped from Well 2 through a 4-inch Sensus flow meter and two 4-inch wafer check valves before joining water from Well 1 and then flows into the storage tank. The well turns on when the pressure in the tank is at 45 psi and turns off at 65 psi, with the pressure switch located at the tank. Chlorine is injected for disinfection prior to entering the tank. There is a 4-inch line for flow from Well 1 to bypass the storage tank that is normally closed. Water exits the tank on the opposite side and flows through a 6-inch flow meter and then out to distribution. The plant is located down a long sandy road, shown in Figure 2-1. The Sunshine representative also stated that the area is located within a bear preserve and seeing bears in the area is not uncommon.

Figure 2-1: Sandy Access Road

Table 2-1: Major System Components

Purpose	Type	Details	Age (Source)	Condition
Source	Well 1	225 feet deep, 811 GPM	1987 (Sanitary Survey)	Poor
Source	Well 2	297 feet deep, Unknown yield	1999 (Sanitary Survey)	Poor
Treatment	Disinfection	Chlorine	Unknown	Poor
Storage	Hydropneumatic Tank	10,000 gallons, Steel	Unknown	Poor
Generator	Generac	45 kW, 277 volts, 3 phase	Unknown	Poor
Building	CMU	17.25 by 12 feet	Unknown	Fair

2.1.1 Source

Well 1 is located within a locked fenced in area and is located roughly 2.5 feet from the pump station building. The top of the well casing 12 inches above grade and within a concrete pad. The well is 225 feet deep with one submersible Sta-Rite 811 GPM pump and 40 HP motor. The well has a screened vent with a check valve and a sample tap off the top of the well. During the inspection, the check valve and sample tap were noted to be leaking. Well 1 acts as the "lead" well so the majority of water demand is supplied by Well 1. The well and flow meter are shown in Figure 2-2 and Figure 2-3.

Figure 2-2: Well 1

Figure 2-3: Well 1 Flow Meter

Well 2 is in a separate fenced in area located 20 feet from Well 1 and 35 feet from the pump station building. The fence around Well 2 is loose and overgrown. The top of the well casing is 13.5 inches above grade and within a concrete pad. The well is 297 feet deep with an unknown pump and motor size. There is a sample tap but no vent off of the well. Water from well 2 is measured through a 4-inch Sensus meter. Well 2 acts as the "lag" well so it will only activate if the water demand is higher than what Well 1 can provide. The well and flow meter are shown in Figure 2-4 and Figure 2-5.

Figure 2-4: Well 2

Figure 2-5: Well 2 Flow Meter

There is no known potential source of contamination within a 1000-foot radius of the well. Please refer to Appendix A for the 2019 FDEP Source Water Assessment & Protection Program Results.

2.1.2 Treatment

Chlorine is injected for the purpose of disinfection prior to the hydropneumatic tank. The chlorine mix is unknown and is housed in 100-gallon storage tank located indoors. The chlorine is delivered through two diaphragm pumps. The chemical injection for Well 1 is supplied from a 15 GPD Chemtech pump, set at 100% stroke. The chlorine for Well 2 is supplied by a 12 GPD Uni Dose pump set at 100% stroke. The chemical metering pumps at Winding Waters are shown in Table 2-2. The average distribution residual in 2019 was 1.3 mg/L.

The chlorine pumps will turn on when the pump is energized, and the chemical pump outlets are wired to their respective well pump starter.

Table 2-2: Winding Waters Chemical Metering Pumps

Chemical Pump	Chlorine (Well 1)	Chlorine (Well 2)
Number of Pumps	1	1
Brand	Chem-Tech	Uni-Dose
Model	X015-XA-AAAFXXX	U021-281TT
Size	15 GPD	12 GPD

Figure 2-6: Chemical Treatment

2.1.3 Storage

The Winding Waters water treatment plant has a 10,000-gallon hydropneumatic storage tank onsite, shown in Figure 2-7. The tank is plumbed with 4-inch isolation butterfly valves at the inlet and a 4-inch isolation gate valve at outlet of the tank with a 4-inch bypass line that is normally closed, and a drain gate valve located underneath the tank. The operating set points for the tank are to turn on the well at 45 psi and turn off at 65 psi. The pressure is monitored with a pressure switch to energize the well and chemical treatment pumps. The tank is equipped with a sight tube and pressure gauge for quick reference. The tank is not equipped with an air compressor and air is injected into the tank via a bleeder tee located inside the well. The tank is equipped with a portable air compressor connector on the sight tube to inject air if needed as a backup.

The most recent inspection on the storage tank was performed by Enviro-Tech, Inc. in December 2018 and stated that the exterior condition was in overall fair condition and the interior of the tank appeared to be in poor condition. The tank interior had significant areas where the coating had begun to fail, and corrosion had formed on the interior tank surface. Please refer to Appendix B for the 2018 Tank Inspection Report.

Figure 2-7: Pump Station Building and Storage Tank

2.1.4 Pump Station Building

The pump station building is a 17.25 by 12-foot CMU building with a wooden roof primarily used for storage of the chlorine mixing tank, injection tanks, and facility logbook, shown in Figure 2-7. The building has no door but has an opening with a width of 40 inches. The building had no evidence of roof leaks or rodents, but the open door provides no containment for spills or protection from rodents and insects and there were unsecure cracks in the bricks. The building is within a fence with a locked gate, and has no fire extinguisher, floor drains, chemical containment, PPE, or lighting available on-site. The building interior is shown in Figure 2-8.

Figure 2-8: Pump Station Building Interior

2.1.5 Back-Up Power

The Winding Waters plant has a 45 kW Generac generator unit onsite to power the well pumps if there is an interruption in power supply. The generator is not exercised on a periodic basis, and the site is equipped with an automatic transfer

switch. The generator runs on propane and is supplied by two 120-gallon propane tanks. The automatic transfer switch and propane storage tanks were in poor condition.

The Emergency Response Plan provided by Sunshine Utilities references the generator and the procedures for using it during an emergency. Please refer to Appendix C for the 2013 Emergency Response Plan.

Figure 2-9: Back-up Power Generator

Figure 2-10: Automatic Transfer Switch

Figure 2-11: Propane Storage Tanks

2.2 Permit Information

2.2.1 Water Quality and MCL Exceedances

There was no water quality or MCL exceedances reported in the plant's annual drinking water quality report for the previous three years. Please refer to Appendix D for the 2019 Consumer Confidence Report. Additionally, there were no bacteria positives recorded during 2019 monthly bacteria samples.

2.2.2 Compliance and Violation History

The most recent sanitary survey for the plant was conducted on March 13, 2020 and noted one deficiency during the inspection. The inspection report stated that there was an inadequate combined or free chlorine residual. The plant was brought back into compliance on March 24, 2020 after sending an email to FDEP stating that the minimum remote residual was restored. Please refer to Appendix E for the Sanitary Survey Report. Additionally, no compliance issues or violations were observed in the Florida Department of Environmental Protection information portal in the last ten years.

2.3 Recommended Repairs and Improvements

2.3.1 General Plant

There is no lighting at the site. Floodlights should be installed to allow the site to be safely accessed at night.

The building onsite has been subject to degradation from chlorine off gassing and general weathering over time. The building also offers little protection from weather and tampering as there is no door as well as unsecure cracks in the bricks. It is recommended that the building be upgraded to be more secure.

Given the isolated location of the station, remote monitoring should be installed to alert operations staff of any issues, and to continuously log information. Mission Monitoring would be suitable for achieving this and should be installed at this site. Prior to the installation of the Mission Monitoring System, a licensed electrical contractor should conduct a site visit to ensure that the monitoring system can be installed safely. If any electrical code or safety items are identified, repairs should be made.

Remote monitoring of the following parameters is recommended.

- Flow (instantaneous and totalized)
- Well Pump Run Hours
- Well Pump Fail
- System Pressure
- Chlorine Level
- Generator Active

2.3.1.1 Electrical Items

From the site visit and visual of the electrical components (example shown in Figure 2-12), replacement is recommended due to the condition of the panels for health and safety considerations and to ensure the equipment meets national and local electrical codes.

Additionally, vendors have indicated that they will not install their equipment in panels that do not meet code or that are significantly deteriorated. As such, it is recommended than a licensed electrical contractor conduct a visit to the site to make a final recommendation based on national and local electrical codes and provide a detailed cost estimate for the work. See Section 4 for a high-level cost estimate.

The generator on site is old and will likely be due for replacement. Standby power is required at this site per Florida Administrative Code 62-555.320 (14) (a).

Figure 2-12: Electrical Panels

2.3.2 Source of Supply

Well 1 had a leaking check valve and sample tap. These should be replaced.

A vent should be installed on Well 2.

The access road to Well 1 and Well 2 was overgrown and should be cleared to allow truck access should the pump need to be replaced. The vegetation is shown in Figure 2-13.

Figure 2-13: Well Access Road

2.3.3 Water Treatment and Pumping

A continuous in-line chlorine analyzer should be installed to monitor the concentration of chlorine and report back to Mission Monitoring. This would allow the operations staff to track if the dose is lower or higher than the target range. Currently, chlorine is monitored by grab samples taken by the operator, for onsite testing. The chlorine analyzer should be reagent-less (amperometric), and an infiltration well will likely need to be installed for the discharge water.

The hydropneumatic tank inspection report noted the tank interior to be in poor condition, with significant areas where the no coating was present. The tank interior had significant areas where the coating had begun to fail, and corrosion had formed on the interior tank surface. The tank is likely older than fifteen years, and the interior should be sand blasted and re-coated with minimum of 5 mils DFT with epoxy to prevent further corrosion.

There are chemicals stored onsite have no secondary containment to protect against accidental release into the environment. Currently there is a 100-gallon storage tank for chlorine. The tank should be stored on a pallet that can contain the total volume of the chemical. Without secondary containment, this is in violation of Florida Administration Code 64E-8.005. This can be accomplished by storing the chemical on a pallet such as the PIG IBC Spill Containment Pallet, with a 360-gallon containment capacity. An example is shown in Figure 2-14.

Figure 2-14: PIG IBC Spill Containment Pallet

3. WATER DISTRIBUTION SYSTEM

3.1 Distribution System Description

The distribution system was built in the mid 1980's and supplies water using a 2 to 8-inch PVC water main in a loop configuration. The loop has gate valves to isolate sections of the loop if needed and one blowoff valve located. The system provides the community with potable water only (no fire flow water). Refer to Appendix F for a map of the water distribution system.

Sunshine Utilities states that the valves are exercised at least once a year and that there are no backflow prevention devices or fire hydrants in the distribution system. The system supplies water to single homes with mostly double service lines off the water main. Each home has its own aboveground meter located behind each house. Sunshine Utility currently collects readings from the meters manually once a month. There are no pending developments in the service area of the plant.

3.2 Recommended Repairs and Improvements

An automatic flushing unit and chlorine analyzer is recommended to be installed at the dead-ends to help improve water turn over and water quality.

4. CAPITAL ESTIMATES

4.1 Triage Repairs

Repairs needed to address safety and liability hazards, as well as upgrades needed to bring Winding Waters to normal operating conditions are summarized with cost estimates in Tables 4-1 through 4-3. The total cost estimate for Triage Repairs at Winding Waters is: **$65,800**.

Table 4-1: General Plant Triage Repairs

Recommendation	Estimate
Install Flood Lights	$1,000
Upgrade Electrical	$50,000
Mission Monitoring at Well	$10,000
Total	$61,000

Table 4-2: Source of Supply Triage Repair

Recommendation	Estimate
Install Vent and Clear Well Access Road	$3,000
Total	$3,000

Table 4-3: Water Treatment and Pumping Triage Repairs

Recommendation	Estimate
Chemical Containment	$1,800
Total	$1,800

4.2 Improvements and Other Repairs

Recommendations were provided to increase the reliability for Winding Waters to supply consistent and safe drinking water, and for improved operation and maintenance. The recommendations and cost estimates are summarized in Tables 4-3 through Table 4-7. The total cost estimate for Capital Improvements at Winding Waters is: **$114,500**.

Table 4-4: Water Treatment and Pumping Capital Improvements

Recommendation	Estimate
Continuous Chlorine Analyzer and Infiltration Well	$9,000
Interior Tank Coating	$8,000
Transmitters and Other Monitoring Equipment	$2,500
Total	$19,500

Table 4-5: Source of Supply Capital Improvements

Recommendation	Estimate
Replace Source Meter	$8,000
Total	$8,000

Table 4-6: Transmission and Distribution Capital Improvements

Recommendation	Estimate
Automatic Flushing Unit	$27,000
Total	$27,000

Table 4-7: General Plant Capital Improvements

Recommendation	Estimate
Building and Site Repairs	$25,000
Replace Generator	$35,000
Total	$60,000

APPENDIX A: SOURCE WATER ASSESSMENT & PROTECTION PROGRAM RESULTS

» SWAPP Homepage
» Search By County
» Search by PWS Name or Number
» How to Help?

Definitions

» Aquifers
» Public Water Systems
» Assessment
» Potential Contaminants
» Susceptibility
» Prevention

Contact Us

» Email
» Mailing Address
» Source Water Protection Workshop

EPA Source Water Protection website

Source Water Assessment & Protection Program

Results for: 2019

WINDING WATERS
SE 58 PL & SE 183 AVE
OCKLAWAHA, FL 34471

Public Water System ID: 3424691
County: MARION
DEP Regulatory Office: DEP Central District
3319 Maguire Blvd, Suite 232
Orlando, FL 32803
407-897-4100
Public Water System Type : COMMUNITY
Public Water System Source : GROUND
Primary Use: MOBILE HOME PARK
Population Served: 473
Size of Assessment Area:
GROUND: For this system, a 1000-foot radius circle around each well was used to define the assessment area.

Number of Wells: 2

Well ID	Owner ID	FLUWID	Status	Well Depth(ft)	Aquifer
6029	WELL#2 8" 177'/297' 420 GPM	AAC3154	ACTIVE	297	Floridan Aquifer
6028	WELL#1 8" 147'/225' 430 GPM	AAE0268	ACTIVE	225	Floridan Aquifer

Results:

GROUND WATER:
A search of the data sources indicated no potential sources of contamination.

Last updated: February 19, 2020

Accessibility Information

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3900 Commonwealth Boulevard M.S. 49
Tallahassee, Florida 32399
850-245-2118 (phone) /
850-245-2128 (fax)

APPENDIX B: TANK INSPECTION REPORT

INSPECTION AND TESTING of HYDROPNEUMATIC TANK

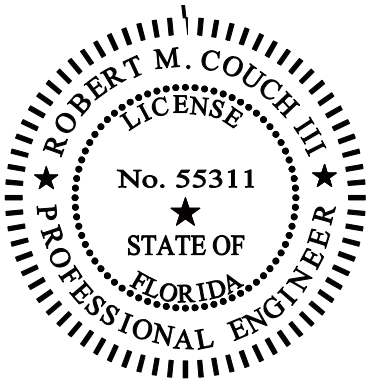
Winding Waters Subdivision Tank

Pursuant to Chapter 62-555.350 (1) & (2) F.A.C

Water System:	Winding Waters Subdivision
Street Address:	Southeast 183rd Avenue Road/5800 Block
City, State:	Marion County, Florida
Phone:	352-347-8228
Contact:	Dewaine Christmas
E-mail:	sunshineutl@aol.com
PWS ID No.:	3424691
County:	Marion
Classification:	Community
Source:	Ground
Ownership:	Sunshine Utilities of North Central Florida
Date:	December 13, 2018

Inspection and Testing by:

Robert M. Couch III, P.E.
ENVIRO-TECH, Inc.
PO Box 152
Weirsdale, FL 32195
Telephone: 352-694-1799
E-mail: envirotech@ymail.com



C.O.A. No. 8692 Registration No. 55311

Robert M. Couch III, P.E.

Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=Reg. No. 55311, email=envirotech@ymail.com, c=US
Date: 2019.01.27 21:32:38 -05'00'

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1.0 EXECUTIVE SUMMARY

ENVIRO-TECH, Inc. was contracted to perform the five year tank condition inspection on the above mentioned hydro-pneumatic tank.

This condition inspection was performed on December 13, 2018 by Robert M. Couch III, P.E. on the above referenced water tank. The tank was drained and, an internal and external inspection was performed to assess the tank condition as required by the Florida Department of Environmental Protection (FDEP) Rule 62-555.

The tank shell and heads appeared to be in overall fair structural condition. Ultrasonic Thickness Measurement (UTM) readings indicated that the average thickness of the tank shell at the time of the field inspection was approximately 6.084 millimeters. UTM readings from the tank heads indicated an average thickness of 6.565 millimeters. The exterior coating of the tank appeared to be in overall fair condition with no notable surface corrosion. The interior coating of the tank appeared to be in poor condition with significant surface corrosion beginning to form along the tank ridge and walls.

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 45 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

2.0 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS CHAPTER 62-555.350 (1) & (2)

2.1 Operation and Maintenance of Public Water Systems

(1) Suppliers of water shall operate and maintain their public water systems so as to comply with applicable standards in Chapter 62-550, F.A.C., and requirements in this chapter.

(2) Suppliers of water shall keep all necessary public water system components in operation and shall maintain such components in good operating condition so the components function as intended. Preventive maintenance on electrical or mechanical equipment – including exercising of auxiliary power sources, checking the calibration of finished-drinking-water meters at treatment plants, testing of air or pressure relief valves for hydropneumatic tanks, and exercising of isolation valves –shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water; however, in no case shall auxiliary power sources be run under load less frequently than monthly. Accumulated sludge and biogrowths shall be cleaned routinely (i.e., at least annually) from all treatment facilities that are in contact with raw, partially treated, or finished drinking water and that are not specifically designed to collect sludge or support a biogrowth; and blistering, chipped, or cracked coatings and linings on treatment or storage facilities in contact with raw, partially treated, or finished drinking water shall be rehabilitated or repaired. **Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida.** Dead-end water mains conveying finished drinking water shall be flushed quarterly or in accordance with a written flushing program established by the supplier of water; additionally, dead-end or other water mains conveying finished water shall be flushed as necessary whenever legitimate water quality complaints are received.

2.2 Location of Inspection and Testing Report

Pursuant to Chapter 62-555.350 (2) and 62-555.350 (12) FAC, beginning 28 August 2003, all water systems regardless of size must maintain a copy up-to-date Preventive Maintenance Logs of each water system in the water facility office. The Preventive Maintenance Logs must show the date and type of all maintenance performed and comply with Rule 62-555.350 (2) and 62-555.350 (12), which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

A copy of this report should be kept with these records.

3.0 HYDROPNEUMATIC PRESSURE TANK INSPECTION AND TEST PROCEDURES

This Inspection and Test Procedures is used as a reference in the overall inspection and testing of this Water System. This procedure is to be updated from time to time to reflect physical and procedural changes to the water system.

Inspection and testing of this tank was conducted by Robert M. Couch III, P.E. with the assistance of Jim Hodges Jr. of Sunshine Utilities of North Central Florida, Inc. The following inspection and testing procedures for hydropneumatic pressure tanks were used:

3.1 Pre-Test Procedures

1. If water service is to be interrupted customers must be notified in advance and if appropriate, boil water notices issued.

2. Turn-off all electrical power to well pumps, air motors, chlorination equipment, etc.

3. Open drain valve to empty tank. This is also a good time to check the valves (exercise them) that isolate the tank to see if they are in fact working as they should. This downtime can also be used to replace a valve if needed.

4. Once depressurized, the site glass is inspected for proper operation.

5. Once the tank is drained, the manway (hatch) will need to be removed for inspection of the interior.

3.2 Visual Inspection

6. Perform visual inspection of the tank exterior and accessories for presence of leaks, shell distortion, signs of settling, deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, accessories, etc.

7. Tank layout and physical measurements

8. Color photographs of the tank exterior and all of the essential appurtenances

9. Perform visual inspection of the tank interior for presence of deteriorated metal, pitting, metal delaminations, deteriorated welds, deteriorated coatings, bio-growths, calcium or iron/manganese deposits, sludge, etc.

3.3 Nondestructive Examination

10. The tank interior coating is then examined for dry film thickness (See PosiTest® DFT Coating Thickness Gauge measurement) or equivalent.

11. The tank exterior is then examined for thickness measurements (See Smart Sensor AR 850+ Ultrasonic Thickness Gauge measurement).

12. If deemed necessary, the tank exterior (or interior) is then examined for porosity, pinholes and leaks (See PCWI porosity detection test, also known as holiday detector test).

3.4 Post-Test Procedures

13. Any coating problems detected should be corrected while the tank is out of service in order to avoid further extensive downtime.

14. Once the tank is inspected and all maintenance items are taken care of, the tank will need to be disinfected prior to placing back in use.

15. Once the tank has been disinfected, bacteriological tests must be performed on water samples (2 per FDEP) taken from the tank discharge. FDEP to clear for service prior to placing back in service.

3.5 Safety of Test Area

The test area should be restricted and barricaded. The porosity testing instrument output can be up to 20,000 volts. Testing should be carried out well clear of personnel not involved in the testing procedure. Should accidental contact be made with the test electrode, the recipient will receive a mild shock. This equipment should never be used by a person with a pacemaker.

4.0 TEST EQUIPMENT DESCRIPTIONS

4.1 AR 850+ Ultrasonic Thickness Gauge

The Smart Sensor AR 850+ Digital Ultrasonic Thickness Gauge is an economical, user-friendly, menu driven, and multi-functional unit offering extensive features from basic measurements to extended memory. This dynamic series of UT gauges is designed to measure the thickness of metallic and non-metallic materials such as steel, aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor as long as it has parallel top and bottom surfaces. The AR 850+ gauges will accurately display readings in millimeters after a simple calibration to a known Thickness or sound velocity.

4.1.1 Features

- Main Unit
- Transducer 5 MHz / 2.5 MHz
- Integrated steel calibration plate 4.0mm
- Batteries (2 x AAA)
- Ultrasonic Couplant
- Operation Manual
- Certificate
- Carrying Case
- One Year Warranty

4.1.2 Technical Specification

Display Type	4-digit LCD
Display Resolution	(<100 mm) 0.1 mm
Units	Metric
Measuring Range (steel)	1.2 to 220.0 mm
Sound Velocity Range	1000 to 9999 m/s
Operating Temperature	0 ° C +45° C
Frequency	5 MHz
Power Source	3 X 1.5V AAA batteries
Dimensions	70x145.5x28 mm

4.2 Compact DC Inspector Porosity Detector

Porosity detection of Tanks, Valves, Pumps, Pipeline field joints, and general inspection and maintenance. Suitable for a broad range of testing and inspection requirements. It is recommended that the integral probe be limited to a 125mm flat brush or fan brush.

4.2.1 Standards

ASTM G62-87(1998), ASTM D4787-93(1999), NACE RP0274-98, NACE RP0490-2001, NACE RPO188- 99, JIS G-3491, JIS G-3492, ANSI/AWWA C214-89, ANSI/AWWA C213-94 and ISO 2746:1998

4.2.2 Features

- LED bar graph display of voltage
- "Single" hand-held, lightweight unit for simplicity and ease of operation
- Audible and visual alarms
- LED battery condition indicator
- Integral probe
- Detector
- 7m Earth lead and clamp
- Flat 125mm wide brass wire brush (or optional fan brush)
- Carry Case
- Operating instructions with conformance certificate
- Variable output up to 10kV or Variable output up to 20kV

4.2.3 Technical Specifications

Test Voltage	to 10kV (using 9V Battery)
Output Test Current	up to 100µA
Operating Temperature	-20 to +50ºC
Power Supply	Battery (9V internal)
Unit Dimensions	210 x 75 x 35mm (excl brush) 8.25" x 3.1" x 1.5"
Unit Weight	460g (incl probe)
Shipping Weight	1.5Kg

4.3 PosiTest DFT Coating Thickness Gauge

The new PosiTest DFT Coating Thickness Gauge measures coatings on ALL metals. It is the economical choice that retains the uncompromising quality of Qualitest inspection instruments.

Available in two models:

- PosiTest DFT Ferrous - measures non-magnetic coatings on steel.
- PosiTest DFT Combo - measures both non-magnetic coatings on steel and non-conductive coatings on aluminum, brass, etc. Automatically recognizes the substrate and takes a measurement.

4.3.1 Standards

ASTM B244/B499/B659/D1186/D1400/E376/G12, BS3900-C5, SSPC-PA2, ISO 2178/2360/2808, prEN ISO 19840, and others. Certificate of Calibration traceable to NIST available.

4.3.2 Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear resistant, ruby-tipped probe
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable
- Basic instructions on the back of each gauge

4.3.3 Technical Specifications

Measurement Range	0-40 mils (-1000 µm)
Accuracy	±(0.1 mils + 3%) (±(2µm + 3%))
Size	4 x 1.5 x 0.9 in (100 x38 x 23 mm)
Weight	2.5 oz (70 g)

5.0 HYDROPNEUMATIC PRESSURE TANK DESCRIPTION

The hydropneumatic pressure tank inspected and tested is described as follows:

Length: 29'-0" (33'-0" including elliptical heads)
Diameter: 7'-8" outside diameter
Volume: 10,000 gallons with elliptical heads
Tank Age: Unknown
Operating Pressure: 60 psi

6.0 TESTING

6.1 Porosity Testing

The tank surface was not swept with the Compact DC Inspector Porosity Detector during this inspection as no evidence of pin holes was observed throughout the surface of the tank.

6.2 Interior Coating Testing

No dry film thickness readings were taken within the tank interior as the coating had begun to fail over significant portions of the tank interior.

6.3 Ultrasonic Metal Thickness Testing

A total of 94 metal thickness readings were taken at various locations on the tank shell and head surface. The average shell reading was 6.086 millimeters in the cylindrical section and 6.565 millimeters in the elliptical heads. Typical industry standard minimum wall thickness for tanks of this size is 3/8" (9.53 mm).

7.0 VISUAL OBSERVATIONS

7.1 Tank Exterior

The exterior of the tank appeared to be in fair structural condition.

7.2 Tank Interior

The tank interior appeared to be in poor condition. there were significant areas where the coating had begun to fail and corrosion had formed on the interior tank surface.

8.0 DEFINITIONS

Design Pressure - The maximum design pressure determined from the metal thickness.

Maximum allowable working pressure (MAWP) – Maximum pressure that the pressure tank is capable of safely holding at a design maximum temperature (250ºF).

Operating Pressure - The normal maximum operating pressure of the pressure tank. The normal operating pressure must always be below the MAWP. As a rule of thumb the maximum operating pressure should always be less than the MAWP.

Metal Thickness – The thickness of the pressure tank wall (not including a corrosion allowance) to be used in the pressure calculations.

Design Safety Factor on Metal Tensile Strength – A pressure tank is normally designed with a safety factor of 3 to 4 on the metal tensile strength. All pressure tanks are designed to operate with wall stresses below the yield point of the metal used for fabrication.

9.0 TANK PRESSURE CALCULATIONS

The following formula is found in ASME Section I for determination of MAWP:

For tanks with circumferential stress on (longitudinal joints)

P = SEt/(R+0.6t)
= 60 MPa x 1.0 x 6.084 mm / (1161 mm+0.6 x 6.084 mm)
= 0.313 MPa
= 45 psi

When:

t < 0.5R = 0.5 x 1161 = 580.65 mm (true) or
P < 0.385SE = 0.385 x 60 x 1.0 = 23.1 MPa (true)

Where:

t = metal thickness (mm) where t = 6.084 mm
R = inside radius of shell course under consideration (mm) = 1,161 mm
E = joint efficiency for cylindrical or spherical shells = 1.0 for welded tanks and corresponds to a safety factor of 3.5 in the parent metal.
P = maximum allowable working pressure (MPa) where 1 MPa = 145 psi
S = maximum allowable stress value at the operating temperature of the metal = 60 MPa (Safety Factor of 4).

10.0 CONCLUSIONS

Inspection and testing of the Winding Waters subdivision 10,000-gallon hydropneumatic pressure tank was performed on December 13, 2018. In addition to a visual examination, non-destructive examinations were also made. Non-destructive examinations included ultrasonic measurement of the tank wall thickness and visual inspection for pinholes and leaks. No examination of Dry Film Thickness Measurement (DFTM) of the interior coating was performed as the coating had already failed.

Observations of the tank exterior indicated tank is subject to normal exposure. Observations of tank interior revealed light surface corrosion along the upper ridge portions of the tank interior.

11.0 RECOMMENDATIONS

Based on the condition of the tank noted during the field visit, ENVIRO-TECH, Inc. makes the following recommendations:

- The pressure relief valves should be tested regularly and maintained at 55 PSI or lower.

- The tank exterior should be pressure sprayed as needed to remove any lichens during the next five years.

- The tank interior should be cleaned and reinspected prior to the next 5 year inspection event, and if necessary, sand blasted per SSPC-SP10 and re-coated with a minimum of 5 mils DFT with TNEMEC Pota-Pox Series L140, Series N140 or equal epoxy to prevent further corrosion. After the cleaning and re-coating are complete, the tank should be re-inspected.

Tank observations and calculations indicate the structural integrity of the hydropneumatic pressure tank should function provided the maximum working pressure does not exceed 45 psi until the next 5 year inspection cycle, provided the recommended actions are taken.

Signed: Robert M Couch III Date: 1/27/2019

Robert M. Couch III, P.E. Registration No. 55311

Typical exterior and interior views of tank

APPENDIX C: EMERGENCY RESPONSE PLAN

Disaster-Specific Preparedness/Response Plan

for Public Drinking Water Systems

Per Chapter 62-555.350 (15) F.A.C.

Sunshine Utilities
WINDING WATERS

Address:	10230 East Hwy. 25 Belleview, FL 34420
Phone:	352-347-8228
Fax:	352-347-6915
Contact:	Dewaine Christmas, Manager
E-mail:	SunshineUtl@AOL.COM
Connections:	206
PWS:	3424691
County:	Marion

May 17, 2013

Department of Environmental Protection
Michael D. LeRoy, P.E.
John R. Sowerby, P.E.

FRWA Security Staff
Sterling L. Carroll, P.E.
Ken Klos, P.E.
Coy Donaldson

For more information or additional copies of this document contact:

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2970 Wellington Circle ~ Suite 101 ~ Tallahassee
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e-mail: FRWA@frwa.net

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This template and guide has been developed by the Florida Rural Water Association (FRWA) in collaboration with the Washington State Department of Health, Office of Drinking Water, Olympia, Washington; and reviewed by Florida Department of Environmental Protection.

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Preface
Chapter 62-555.350 (15) FAC

Disaster-Specific Preparedness/Response Plans

(15) Suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall develop a written emergency preparedness/response plan in accordance with Emergency Planning for Water Utilities, AWWA Manual M19, as adopted in Rule 62-555.335, F.A.C., by no later than December 31, 2004, and shall update and implement the plan as necessary thereafter. Said suppliers of water shall coordinate with their Local Emergency Planning Committee and their Florida Department of Law Enforcement Regional Security Task Force when developing their emergency plan and shall include in their plan all of the information in paragraphs (a) through (e) below.

(a) A Communication Charts as described in Chapter 5 of AWWA Manual M19.

(b) Written agreements with other agencies, utilities, or response organizations.

(c) A disaster-specific preparedness/response plan as described in Chapter 5 of AWWA Manual M19 for each of the following disasters: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release. Each disaster-specific preparedness/response plan shall incorporate the results of a vulnerability assessment; shall include actions and procedures, and identify equipment, that can obviate or lessen the impact of such a disaster; and shall include plans and procedures that can be implemented, and identify equipment that can be utilized, in the event of such a disaster.

(d) Details about how the water system meets the standby power requirements under subsection 62-555.320(14), F.A.C., and, if applicable, recommendations regarding the amount of fuel to maintain on site, and the amount of fuel to hold in reserve under contracts with fuel suppliers, for operation of auxiliary power sources.

(e) If applicable, recommendations regarding the amount of drinking water treatment chemicals, including chemicals used for regeneration of ion-exchange resins or for onsite generation of disinfectants, to maintain in inventory at treatment plants.

Specific Authority 403.861(9) FS. Law Implemented 403.852(12), 403.853(6), 403.861(17) FS. History-New 11-19-87, Formerly 17-22.650, Amended 1-18-89, 1-1-93, Formerly 17-555.350, Amended 8-28-03.

Time Extension for Submitting/Completing ERP – December 31, 2005

From: Hoofnagle, Van
Sent: Thursday, October 21, 2004 11:25 AM
Subject: Time Extension for Submitting/Completing ERP
Importance: High

I am sending this e-mail because of possible confusion in some FDEP District Offices or ACHDs regarding the deadline for compliance with the emergency preparedness/response plan requirements in FAC subsection 62-555.350(15).

As John Sowerby and other staff mentioned during Focus On Change presentations early this year on FAC Rule 62-555.350 and during training this summer on the recent amendments to FAC Chapter 62-555, the FDEP intends to amend FAC subsection 62-555.350(15) to give all affected community water systems (i.e., all community water systems serving 350 or more persons or 150 or more service connections) **until the end of 2005** instead of the end of this year to complete a comprehensive emergency preparedness / response plan as required by FAC subsection 62-555.350(15). At this point, it will likely be after the end of this year before we officially make this change to FAC subsection 62-555.350(15). In the meantime, please do not take any enforcement action against

community water systems who fail to meet the 12/31/04 deadline in FAC subsection 62-555.350(15). Thanks.

Van Hoofnagle
DEP Drinking Water Administrator

Section 1
Communication Charts

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions. List the water system chain of command in order of contact.

Water System Chain of Command – Lines of Authority

Order	Name & Title	Responsibilities During an Emergency	Contact Information
1	Dewaine Christmas Manager	Responsible for overall management and decision making. The manager is the lead for managing the emergency and providing information to regulatory agencies. All communications to external parties are to be approved by the manager.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl@AOL.Com
2	James Hodges Jr. Field Supervisor	Responsible for decision making in the field. In charge of overall maintenance, and repairs to all components of water system.	Phone: 352-347-8228 Cell: 352-239-1198 Email: SunshineUtl @AOL.Com
3	Kelvin Edun Water Treatment Plant Operator	Responsible for running water treatment plant, performing inspections, maintenance, sampling and relaying all critical information to Field Supervisor.	Phone: Cell: 352-875-5141 Email:
4	Pamela Christmas Office	Responsible for assisting the manager in administrative duties and emergencies.	Phone: 352-347-8228 Cell: 352-245-4743 Email:
5			Phone: Cell: Email:
6			Phone: Cell: Email:
7			Phone: Cell: Email:

Emergency Notification

Notification call-up lists - Use these lists to notify important parties of an emergency.

Emergency Notification List				
Organization or Department	**Name & Position**	**Telephone**	**Cell Phone**	**e-mail**
State Warning Point	**Duty Officer**	**800-320-0519**	800-320-0519	N/A
Local Law Enforcement	EOC Commander	352-622-3205		Pstefanski@sheriff.marioncountyfl.org
Fire Department		911		
Emergency Medical Services		911		
Water Operator (if contractor)	Kelvin Edun Operator	352-875-5141		
County Health Department	Tom Moore Director of Environmental Health	352-622-7744	352-266-7486	
DEP District Office	Manny Cardona	407-897-4134	Fax 407-893-4418	
County Emergency Management Dept.	Chip Wildy	352-622-3205		
Local Leader (City Mgr., Mayor, Chair. Co. Comm., etc.)				
Local Hazmat Team (if any)		911		
Hazmat Hotline		911		
National Spill Response Center.	Duty Officer	800-424-8802	800-424-8802	N/A
Interconnected Water System(s)				
Neighboring Water System (not connected)				
FRWA Water Circuit Rider	Tom Gustafson	850-668-2746	352-267-1302	

Priority Customers

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Hospital Or Clinic(s)				
Nursing Home(s)				
Public Schools				
Private Schools				
Wastewater Treatment Plant				
Food Processing Or Other Industry				

Service / Repair Notifications

Organization Or Department	Name & Position	Telephone	Cell Phone	email
Electric Utility Co.	Clay Electric	352-473-8000		
Electrician	Melville Electric	352-245-0600		
Gas / Propane Supplier	Belleview Gas	352-245-6055		
Water Testing Lab.	Aqua Pure Lisa Saupp	352-625-2822		
Sewer Utility Co.				
Telephone Co.	Sprint	800-788-3600	611	
Plumber	ACP	352-427-7036		
Pump Supplier	Coast Pump	352-620-0616	352-266-4277	Coastpumpocal@hotmail.com
"Dig Safe" or "One Call"	Sunshine One Call	800-432-4770		
Rental Equip. Supplier	B&M Rental	352-245-3133	352-245-9800	

Service / Repair Notifications				
Organization Or Department	**Name & Position**	**Telephone**	**Cell Phone**	**email**
Chlorine Supplier	Custom Controls	352-622-9244	352-304-0572	
Other Chemical Suppliers				
Radio/SCADA Repair Co.				
Bottled Water Service				
Bulk Water Supplier				
Well Drilling Co.	Earls Well Drilling David Moffitt	352-245-2324	352-817-0502	
Pipe Supplier	National Water Works Roy Sands	352-351-8144	352-266-4705	

Designated Public Spokesperson and Alternates

Designate a spokesperson (alternates) for delivering messages to the news media & public

Public Spokesperson	Name & Position	Telephone	Cell Phone
Spokesperson	Dewaine Christmas Manager	352-347-8228	352-239-1198
Alternate 1	James Hodges Jr. Supervisor	352-347-8228	352-239-1197
Alternate 2			

Key Messages

Develop possible messages in advance, and update them as the emergency develops
▪ We are aware of the emergency and are working diligently to restore your water service.
▪ If you fall under a boil water notice you must bring water to a rolling boil for a period of at least one minute. You only have to boil water for human cunsumption.

▪

Health Advisories – Boil Water Notices

Use the assistance of your County Health Department and/or District FDEP office, and FDEP's Mandatory Health Effects Language, located on FDEP's website at:

http://www.doh.state.fl.us/environment/water/manual/boil.htm

http://www.DEP.state.fl.us/water/drinkingwater/rules.htm,

and click on "Mandatory Health Effects Language"., PLUS EPA's templates at:

http://epa.gov/safewater/pn.html

Click on "Microsoft Word and Word Perfect files of PN templates" (PN means Public Notifications), then determine which "Tier" of notifications is needed and click on the desired software to receive them in.

Section 2
Written Agreements With Other Agencies, Utilities, or Response Organizations

INSERT BELOW information regarding any written agreements with other agencies, utilities, or response organizations, such as emergency interconnects, mutual aid or FlaWARN.

Emergency Interconnect(s)

Information on the location of interconnection(s) (if any), type and size of interconnecting pipe, pumps and accessory equipment, meters at interconnection(s), normal pressures at both ends of interconnection, volume of water from interconnection(s), type of agreement and approvals needed for use, procedures necessary to use interconnection, etc.

Location (Street)	
Location (GPS)	
Description	

Memoranda of Understanding

Organization	
Summary of Understanding	

Mutual Aid Agreements

Organization	Marion Utilities, 352-622-1171
Summary of Understanding	Will render mutual aide – ie: pumps, generators, and other materials necessary to restore water service.

FlaWARN

Organization	
Summary of Understanding	

Section 3
Disaster-Specific Preparedness/Response Plan

Your disaster-specific preparedness/response plan must include a Vulnerability Assessment and preparedness / response plans for: vandalism or sabotage; a drought; a hurricane; a structure fire; and if applicable, a flood, a forest or brush fire, and a hazardous material release.

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

Vulnerability Assessment

It is essential that water systems identify and assess the vulnerability of each system component for both natural and human-caused emergencies, before preparing their disaster-specific preparedness/response plans. Prepare your Vulnerability Assessment by completing the table below:

Facility Vulnerability Assessment

System component	Description and condition	Vulnerability	Security improvements (indicate existing or proposed)
Raw Water Sources	(2) 8" groundwater wells located several hundred feet from homes. Wells are in good condition. We have wellhead protection in place.	The wells are most vulnerable to above ground activities because they are only 225 and 247 FT deep.	1.Purchase land surrounding well. 2. Secure well house to foundation and install lighting around well house.
Pump-house and pumping facilities	The pump-house and pumping facility are in good condition.	Pump location is fully fenced with a locked gate.	Install tamper proof padlocks.
Treatment Facilities	There is a hypo-chlorination system inside of pump house. System is in good condition.	Chlorination systems are not subject to power outages.	There is a backup generator on site in compliance with CH. 62-555.320(14)FAC
Storage Facilities	Hydro pneumatic tank is fenced in good condition.	Tank is not in a lighted area.	Install lighting in area of tank.
Computer and telemetry systems	Computers are in utilities main office and are in good condition.	Computers should be better protected against cyber attack or hacking.	Secure computers with firewalls & virus protection.

A. Vandalism or Sabotage Response Procedures

1. Utility staff first aware of incident:
    a) Calls 9-1-1/ Local Law Enforcement.
    b) Calls Manager
2. Manager determines severity of incident.
    a) Field supervisor determines if vandalism or sabotage will effect the water quality.
    b) Manager reports incident to the state warning point.
3. Field supervisor directs repairs as needed.
    a) Complete repairs
    b) Update ERP as needed.

B. Drought Response Procedures

Include water use restrictions per Consumptive Use Permit

1. Manager coordinates with the local Water Management District (WMD) regarding drought conditions.
    a) If drought conditions exist, a water conservation plan will be initiated.
    b) Literature will be distributed to customers regarding the drought.
    c) Conservation material will be distributed to customers on conservation measures.
    d) Customers not abiding by restrictions will be reported to WMD.
    e) Manager updates ERP as needed.

C. Hurricane Preparedness & Response Procedures

Pre- Hurricane **(36 to 48 hrs prior to arrival)**	1. Manager coordinates with local EOC. 2. Field supervisor checks operation of standby power. 3. Field supervisor secures fuel and treatment chemicals for a 10 day period. 4. Manager replenishes inventory of spare parts.
Hurricane Watch **(24 to 36 hrs prior to arrival)**	1. Manager cancels all time off for employees. 2. Manager issues work assignments in advance in case of communication loss. 3. Employees all top off fuel in vehicles & standby generators. 4. Manager authorizes employees to secure their personal property and arrange for the safety of family members.
Hurricane Warning (24hrs or less prior to arrival)	1. Employees report to designated areas and wait for instructions. 2. Employees load truck with supplies. 3. Employees follow evacuation protocol.
Recovery Procedures	1. Manager coordinates with local EOC. 2. Manager issues boil water notices if needed. 3. Field supervisor coordinates repairs. 4. Manager makes contact with the appropriate DEP office. 5. After repairs are completed samples are taken. 6. When samples come back clear – boil water notice is lifted. 7. Manager files all malfunction reports with the DEP. 8. Field supervisor inspects all systems to make sure everything is running smooth.

D. Structure Fire Response Procedures

1. Utility staff discovering fire:
    a) Evacuate structure on fire.
    b) Call 9-1-1
2. Manager determines severity of incident.
    a) Manager contact State Warning Point.
    b) Field supervisor coordinates repairs when fire is extinguished.
3. Field supervisor reports to manager when repairs are complete.
    a) Manager reports completion of all repairs to any Gov. agency.
    b) Manager updates ERP as needed.

E. Flood Preparedness & Response Procedures

(Is any critical part of your system in a flood prone area?)

None of our systems are in a flood prone area.

F. Forest or Brush Fire Response Procedures

(Is any critical part of your system subject to forest or brush fires?)

1. Utility staff discovering fire.
    a) Orders evacuation of any threatened buildings.
    b) Calls 9-1-1 to report fire.
2. Manager determines the severity of fire.
    a) Manager contacts the State Warning Point.
    b) Field supervisor inspects for any damage and coordinates repairs after fire is extinguished.
3. Field supervisor reports to manager that all repairs are complete.
    a) Manager updates the ERP as needed.
    b)

G. Hazardous Material Release Response Procedures

Do you have any hazardous material (chlorine gas) at your water system?

We have no Hazardous materials at any of our water systems.

H. Other Disaster Response Procedures

Are there other disasters that you want to prepare for, such as a Contamination event, SCADA Attack, or Structural Damage from an Intentional Act?

Contamination

1.
   a)
   b)
2.
   a)
   b)

SCADA Attack

1.
   a)
   b)
2.
   a)
   b)

Structural Damage from an Intentional Act

1.
   a)
   b)
2.
   a)
   b)

Section 4
Standby Power Requirements

Include details about how the water system meets the standby power requirements as described in Ch. 62-555.320(14), and 62-555.350(15)(d) FAC for water source, treatment, and pumping facilities necessary to deliver drinking water at a rate at least equal to the Average Daily Water Demand.

Standby Power for Wells or Surface Water Intakes

Standby Power (or by alternate means) to OPERATE WELLS at Average Daily Demand

Average Daily Demand (ADD) in gpd or gpm	47000 gpd
Wells Needed to Supply Average Daily Demand	1
Standby Generator (kW) Needed for ADD &	45 KW
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	We will have reserve fuel in the case of an emergency.

Standby Power for Treatment Facilities

Standby Power (or by alternate means) to TREAT WATER at Average Daily Demand

Treatment Units Needed to Supply ADD	
Standby Generator (kW) Needed to Treat ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Standby Power for Pumps

Standby Power (or by alternate means) to PUMP WATER at Average Daily Demand

Pumps Needed to Supply ADD	
Standby Generator (kW) Needed to Pump ADD	
Power Failure Transfer, Alarms & Notifications	
Generator Fuel Consumption	gallons per hour
Recommended On-Site Fuel Storage (gallons)	
Reserve Fuel by Supplier Contract	

Section 5
Drinking Water Treatment Chemicals & Disinfectants

Include recommendations regarding the amount of drinking water treatment chemicals, to maintain in inventory at treatment plants. Do not just list chemical storage capacity, but instead recommend the minimum amount of chemicals to maintain in inventory, which depends upon the location and reliability of chemical suppliers, the status of impending disasters, etc.

Disinfection Treatment Information

Disinfection Chemical(s)	Chemical / Location No. 1	Chemical / Location No. 2
Type of Chemical	Chlorine	
Type of Chemical Feed	Hypo-Chlorinator	
Chemical Storage Location	On site in the pump house.	
Recommended Minimum Amount to be Maintained in Storage (gal)	55 gallons	

Other Chemical Information

Chemical(s) Used	Chemical #1	Chemical #2	Chemical #3	Chemical #4
Type of Chemical				
Type of Chemical Feed				
System Location				
Chemical Storage Location				
Recommended Minimum Amount to be Maintained in Storage (gal)				

Appendix A
Basic System information

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Keep this basic information readily available for when you need it for emergency responders, repair people, the news media and potentially, an emergency operator.

Basic System Information

GPS coordinates will help emergency crews find your system following a major catastrophe.

System identification number (PWS ID)	**3424691**	
System name and address	**Winding Waters**	
GPS Coordinates	Latitude:	Longitude:
Basic description and location of system facilities	**5855 SE 183rd Ave Rd**	
Population served and service connections.	Population =	Connections = 206
System Owner	**Sunshine Utilities of Central Florida, Inc.**	
Management Authority	**Owner and Manager**	
Name, title, and phone numbers of person responsible for maintaining and implementing the ERP.	**Dewaine Christmas** **Manager**	**352-347-8228 phone** **352-239-1198 cell**

System Demand

Demand based on Monthly Operational Records and system capacity based on Sanitary Survey.

Average Daily Demand (gpd)	47000 GPD
Maximum Daily Demand (gpd)	56000 GPD
System Capacity (gpd)	240,000 GPD
Peak Hour Demand (gpm)	N/A

Location of Pertinent Information

Item	Location
Distribution System Map	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
O&M Manual(s)	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.
Start-Up / Shut-Down Procedures	Utilities main office, 10230 E Hwy 25, Belleview, FL 34420.

Well Information

GPS coordinates will help emergency crews find wells following a major catastrophe.

Well Information	Well No. 1	Well No. 2	Well No. 3	Well No. 4
GPS well tag #				
Location (street)	5855 SE 183rd Ave Rd	5855 SE 183rd Ave Rd		
GPS Coordinates	Lat: Long:		Lat: Long:	Lat: Long:
Well Depth (ft)	225 FT	247 FT		
Well Yield (gpd)	489600 GPD	748800 GPD		
Pump Type	Submersible	Submersible		
Manufacturer	Sta-Rite	Sta-Rite		
Capacity (gpm)	340 GPM	520 GPM		
Motor Manufacturer	Franklin	Franklin		
Horsepower	20 HP	30		
Phase	3	3		
Volts/Amps	230 volts	230 Volts		

Surface Water Sources

GPS coordinates will help emergency crews find surface water intakes following a major catastrophe.

Surface Water Information	Intake No. 1	Intake No. 2
Location (Street / Description)		
GPS Coordinates	Lat: Long:	Lat: Long:
Critical Water Level		

Finished Water Storage

GPS coordinates will help emergency crews find tanks following a major catastrophe.

Name of Storage Unit	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Location (Street)				
Location (GPS)	Lat: Long:	Lat: Long:	Lat: Long:	Lat: Long:
Type (ground, elevated, etc.)				
Capacity (gal)				
Empty Elevation				
Overflow Elevation				

High Service Pumps

HSP	HSP No. 1	HSP No. 2	HSP No. 3	HSP No. 4
Location (street)				
Pump Type				
Manufacturer				
Capacity (gpm)				
Motor Manufacturer				
Horsepower				
Phase				
Volts/Amps				

Other Applicable Information

Appendix B
Training and Rehearsals

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Event	Description	People & Organizations Involved	Date

Appendix C
Plan Approval

This information is useful and recommended for inclusion in your ERP, it is not required by DEP in Chapter 62-555.350(15).

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name / Title	Signature	Date
Hodges Family Trust		

APPENDIX D: CONSUMER CONFIDENCE REPORT

Certification of Delivery of Consumer Confidence Report

GENERAL INSTRUCTIONS: This form shall be completed by all community water systems (CWSs) that have prepared a Consumer Confidence Report (CCR) in accordance with Rule 62-550.824, F.A.C., Consumer Confidence Reports. At the end of this form is a certification in which a system's authorized representative shall certify that the reported information is accurate and is in conformance with Rule 62-550.824, F.A.C. **COMPLETE THIS FORM AND SUBMIT IT BY AUGUST 10,** together with a copy of your system's CCR, sample email or water bill (with URL notification of CCR, if applicable), and any newspaper notice(s) and posted notice(s) of your CCR, to the appropriate DEP district office or Approved County Health Department (ACHD). Systems serving 100,000 or more persons posting their CCRs on publicly accessible Internet sites shall provide the information on the appropriate Internet link(s). All information provided on this form must be typed or printed in ink.

I. General Water System Information. (To be completed by all community water systems.)

System name: Winding Waters Contact person: Dewaine Christmas

PWS Identification number (PWS ID): 3424691 Contact phone number: (352)347-8228

Mailing address: 10220 East Hwy 25 City: Belleview

State: Fl Zip: 34420-5531 Population served (not the number of "service connections"): _____

II. CCR Distribution Method. (To be completed by all community water systems. Choose A or B as appropriate.)

☐ A. We mailed, emailed, or otherwise directly delivered a copy of our CCR to each customer on _____ (enter date(s) of mailing or delivery) using the method(s) checked below:

- ☐ a. **Mailed** CCR
- ☐ b. **Mailed** notice (e.g. water bill) with **direct URL** to the CCR
- ☐ c. **Emailed** CCR as an **embedded** image or as an **attachment**
- ☐ d. **Emailed** notice with a **direct URL** to the CCR
- ☐ e. **Otherwise directly delivered** CCR to every customer. Explain: _____

☑ B. We were eligible to use a mailing waiver and used a mailing waiver. (Systems are eligible to use a mailing waiver only if they serve fewer than 10,000 persons, have not had any MCL or monitoring and reporting (M/R) violations, nor have been issued any formal Notices of Violations (NOVs), Consent Orders, Administrative Orders, or court-ordered civil actions during the calendar year before the year the CCR is due to the customers).

Answer a, b, **and** c below.)

- ☐ a. Date of newspaper: _____
- ☐ b. Name of newspaper/newsletter that published our CCR: _____
- ☑ c. A copy of our notice to customers, informing them that our CCR will not be mailed to them, is attached.

This notice was: ☑ mailed with bill; ☐ published in newspaper/newsletter; or ☐ other (describe)

_____

III. Posting of CCR on the Internet. (To be completed by all CWSs serving 100,000 or more persons.)

We posted our CCR on this publicly accessible internet site: _____

IV. Report on Your Effort to Distribute Your CCR to Your Water Consumers.
(To be completed by all CWSs. Check all items that apply - at least one item must be checked.)

In addition to the methods selected in Part II,

- ■ A. We posted our CCR on this publicly accessible internet site: www.sunshineutilities.org
- ☐ B. We published our CCR in the local newspaper(s). The name(s) and date(s) of the newspaper(s) are:

_____

RECEIVED
JUL 10 2020
DEP Central District

☐ C. We advertised the availability of our CCR as a press release, radio announcement, or TV announcement. The type(s) and date(s) of the advertisement(s) are: _____

☐ D. We delivered multiple copies of our CCR to single bill addresses serving several persons.

☐ E. We delivered multiple copies of our CCR to the following community organizations:

_____

☐ F. Our CCR was posted in the following public locations: _____

_____

☒ G. Our CCR was distributed by other methods (e.g., additional copies placed in entrance hall to facility). Describe.
Additional copies available at Sunshine Utilities Office

_____

V. Use of Non-English Language in CCR. (To be completed by all community water systems.)

☐ Information in a non-English language was included in our CCR because 20% or more of our customers do not speak English but speak _____. The method we used to determine the proportion of non-English speaking customers is _____

☒ This requirement does not apply to our system, because we have no non-English speaking group among our customers equal to or exceeding 20% of our total number of customers.

VI. Other Delivery Requirements. (To be completed by all community water systems.)

(A) Was a copy of your CCR sent to your county health department, as required by rule? ☒ Yes ☐ No

(B) Is your system regulated by the Public Service Commission (PSC)? ☐ Yes ☐ No

If Yes, was a copy of your CCR sent to the PSC, as required by rule? ☒ Yes ☐ No

(C) If your system sells water to other systems, have you provided them with either a copy of your CCR or the required consumer confidence information? ☒ Yes ☐ No ☒ Not Applicable

VII. Certification of Delivery of CCR and Compliance with Regulations. (To be completed by all CWSs.)

This statement certifies that the above named community public water system has distributed its CCR for the time period starting ***January 1, 2019, and ending December 31, 2019,*** to its customers on 6/15/20 (mm/dd/yy) and provided the appropriate notices of availability according to the requirements listed in this form, which are also found in Rule 62-550.824, F.A.C. This statement also certifies that the reported information is correct and consistent with the compliance monitoring data for the same period previously submitted to the Department, and that the report has been delivered to the agencies identified in Rules 62-550.824(3)(e)3., and 4., F.A.C.

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME (please print): Dewaine Christmas

TITLE: Manager DATE: 6/26/20

☒ **A copy of our CCR is attached, and**

☐ **If using electronic delivery, a copy of our sample email or notice (e.g. water bill), with URL leading directly to the CCR and not a general information website, is attached. For example, if you are using the FRWA website to post your CCR, your URL would be:**

www.frwa.net/2012-Your PWSID Number.pdf (www.frwa.net/2012- 0000000.pdf).

SUNSHINE UTILITIES
10230 East Highway 25
Belleview, Florida 34420

Drinking Water Quality Report

Annual Drinking Water Quality Report for 2019

Winding Waters

Florida Department of Environmental Protection Public Water System ID # 3424691

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The source of our water is groundwater from two wells located in the community. The well(s) draw from the Floridan aquifer, one of the world's most protected sources. Our water is chlorinated for disinfection purposes. In 2019 the Florida Department of Environmental Protection conducted an assessment which identifies potential sources of contamination in the vicinity of our well(s). The SWAPP (Source Water Assessment and Protection Program) determined our public water system to have "No Potential Sources of Contamination". You may obtain more information at the web site *www.dep.state.fl.us/swapp.*

Winding Waters water system also serves the following communities; Lake Bryant Ridge and Lake Bryant Estates. If you have any questions about this report or concerning your water utility please contact **Dewaine Christmas, at Sunshine Utilities, (352) 347-8228**, during normal business hours. We encourage our valued customers to be informed about their water utility.

Sunshine Utilities routinely monitors for constituents in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

WINDING WATERS

Radioactive Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228	(pCi/L)	APR'15	No	1.5	N/A	0	50	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic	(ppb)	MAY '18	No	3	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	(ppm)	MAY '18	No	0.015	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	MAY '18	No	0.18	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Sodium	(ppm)	MAY '18	No	7.1	N/A	N/A	160	Salt water intrusion; leaching from soil
Thallium	(ppb)	MAY '18	No	0.1	N/A	0.5	2	Leaching from ore-producing sites; discharge from electronics, glass, and drug factories

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	MCL or MRDL Violation Yes / No	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	(ppm)	2019	No	1.4	0.5 - 2.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA_5)	(ppb)	SEP '19	No	0.91	N/A	N/A	MCL = 60	By-product of drinking water disinfection
Total Trihalomethane(tTHM)	(ppb)	SEP '19	No	0.56	N/A	N/A	MCL=80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement		Dates of Sampling (mo./yr.)	AL Violation Yes / No	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	AUG '18	No	0.028	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	AUG '18	No	1.8	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions (please note not all definitions may pertain to your report):

- Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial growth.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- ND – This abbreviation means not detected and indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) - one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) - one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Picocurie per liter (pCi/L) - measure of the radioactivity in water.

What does this mean?

As you can see our system had no violations. We're very proud that your drinking water meets all Federal and State requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sunshine Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

A.) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B.) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D.) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E.) Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the Safe Drinking Water Hotline (800-426-4791).

We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call the numbers listed.

Sunshine Utilities

10230 East Highway 25, Belleview, FL 34420
Office (352)347-8228 – Fax (352)347-6915

We're pleased to provide you with this year's Annual Water Quality Report. The report is designed to inform you about the quality of water and services we deliver to you everyday. Our constant goal is to provide you with a dependable supply of quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We are pleased to report that our drinking water meets all federal and state requirements.

Please follow the link to view your 2019 Annual Water Quality Report.

https://www.sunshineutilities.org/ccr19/2019WindingWaters.pdf

APPENDIX E: SANITARY SURVEY REPORT

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 2, 2020

Dewaine Christmas, Owner
Sunshine Utilities of Central Florida Inc.
10230 E. Highway 25
Belleview, FL 34420
sunshineutl@aol.com

Re: Winding Waters
PW Facility ID #3424691
Marion County

Dear Mr. Christmas:

Department personnel conducted an inspection of the above-referenced facility on March 13, 2020. Based on the information provided during and following the inspection, the facility was determined to be in compliance with the Department's rules and regulations. A copy of the inspection report is attached for your records, and any non-compliance items which may have been identified at the time of the inspection have been corrected.

The Department appreciates your efforts to maintain this facility in compliance with state and federal rules. Should you have any questions or comments, please contact Amada Fernandez at 407-897-4159 or via e-mail at Amada.M.Fernandez@FloridaDEP.gov.

Sincerely,

Jill Farris, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report

cc: Amada Fernandez and Jill Farris, FDEP
Universal Waters, universalwaters94@yahoo.com

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **WINDING WATERS** County Marion PWS ID # **3424691**
Plant Location SE 58 Pl & SE 183 Ave Ocklawaha, FL 34471 Phone 352-347-8228
Owner Name Sunshine Utilities of Central FL Inc.; Attn: Dewaine Christmas Phone 352-347-8228
Owner Address 10230 SE Hwy 25 Belleview, FL 34420
Contact Person Dewaine Christmas Title Owner Phone 352-347-8228
This Survey Date 3/13/20 Last Survey Date 2/27/17 Last Compliance Inspection Date 2/7/13

PWS TYPE: Community

PLANT CATEGORY & CLASS: 5D

MAX-DAY DESIGN CAPACITY: 240,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Hypochlorination

SERVICE AREA CHARACTERISTICS
Mobile home park
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 189
Population Served 473 Basis Operator

OPERATION & MAINTENANCE LOG: Yes
Location Water treatment plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Kelvin Edun C-7419

Hrs/day: *Required* Visit* *Actual* Visit*
Days/wk: *Required* 3 *Actual* 3
Non-consecutive Days? ☒ Yes ☐ No ☐ N/A
Comments *Visit must total 0.3 hr/wk.

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 59,718 gpd
Maximum Day (from MORs) 93,000 gpd 09/2019
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 6" Master
Date Last Calibrated 3/18/20

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Propane generator
Capacity of Standby (kW) 50
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 1 hr/wk.
What equipment does it operate?
☒ Well Pumps
☐ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☒No
Comments

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M

Operation & Maintenance Manual	☒ Yes	☐ No	
Preventive Maintenance Program	☒ Yes	☐ No	☐ N/A
Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments

CROSS CONNECTION CONTROL
BFPAs None observed # Tested N/A
WWTP RPZ N/A Date Tested N/A
Written Plan Yes Date Unknown
Comments

PWS ID # 3424691
Date 3/13/20

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		1 (AAE0268)	2 (AAC3154)		
Year Drilled		1987	1999		
Depth Drilled		225’	297’		
Drilling Method		Cable tool	Other		
Type of Grout		Neat cement	Neat cement		
Static Water Level		12’	Unknown		
Pumping Water Level		Unknown	Unknown		
Design Well Yield		Unknown	Unknown		
Test Yield		Unknown	Unknown		
Actual Yield (if different than rated capacity)		Unknown	Unknown		
Strainer		Unknown	Unknown		
Length (outside casing)		147’	177’		
Diameter (outside casing)		8’’	8’’		
Material (outside casing)		Black steel	Black steel		
Well Contamination History		None	None		
Is inundation of well possible?		No	No		
6’ X 6’ X 4” Concrete Pad		Yes	Yes		
SET BACKS	Septic Tank	>200’	>200’		
	Reuse Water	N/A	N/A		
	WW Plumbing	>100’	>100’		
	Other Sanitary Hazard	None observed	None observed		
PUMP	Type	Submersible	Submersible		
	Manufacturer Name	Sta-Rite	Sta-Rite		
	Model Number	Unknown	Unknown		
	Rated Capacity (gpm)	811	Unknown		
	Motor Horsepower	40	Unknown		
Well casing 12” above grade?		Yes	Yes		
Well Casing Sanitary Seal		OK	OK		
Raw Water Sampling Tap		Yes	Yes		
Above Ground Check Valve		Yes	Yes		
Security		Yes	Yes		
Well Vent Protection		N/A	N/A		

COMMENTS _____

PWS ID # 3424691
Date 3/13/20

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Chem-Tech Capacity 30 gpd
Chlorine Feed Rate 100%
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 1.05 Remote 0.04
Remote tap location 18576 SE 50th St.
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Prior to hydropneumatic tank
Booster Pump Info N/A
Comments Inadequate remote chlorine residual.

Chlorine Gas Use Requirements	YES	NO	Comments
Dual System	☐	☐	
Auto-switchover	☐	☐	
Alarms:			
Loss of Cl_2 capability	☐	☐	
Loss of Cl_2 residual	☐	☐	
Cl_2 leak detection	☐	☐	
Scale	☐	☐	
Chained Cylinders	☐	☐	
Reserve Supply	☐	☐	
Adequate Air-pak	☐	☐	
Sign of Leaks	☐	☐	
Fresh Ammonia	☐	☐	
Ventilation	☐	☐	
Room Lighting	☐	☐	
Warning Signs	☐	☐	
Repair Kits	☐	☐	
Fitted Wrench	☐	☐	
Housing/Protection	☐	☐	

AERATION (Gases, Fe, & Mn Removal)
Type _____ Capacity _____
Aerator Condition _____
Visible Algae Growth _____
Protective Screen Condition _____
Frequency of Cleaning _____
Date Last Inspected/Cleaned _____
Comments _____

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	H
Capacity (gal)	10,000
Material	Steel
Gravity Drain	Yes
By-Pass Piping	Yes
Protected Openings	Yes
Sight Glass or Level Indicator	Yes
PRV/ARV	PRV
Pressure Gauge	Yes
On/Off Pressure	48/68
Access Secured	Yes
Access Manhole	Yes
Tank Sample Tap Location	On tank
Date of Inspection	12/18
Date of Cleaning	12/18

Comments _____

HIGH SERVICE PUMPS

Pump Number		
Type		
Make		
Model		
Capacity (gpm)		
Motor HP		
Date Installed		

Comments _____

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
Inadequate combined or free chlorine residual.	62-555.350(6)	Maintain a continuous minimum free chlorine residual of 0.2 mg/L or a continuous minimum combined chlorine residual of 0.6 mg/L. A Follow-up Inspection will be performed to ensure that the chlorine residual has been restored.	In an email dated 3/24/20, Dewaine Christmas stated the minimum remote residual was restored as of 3/19/20.	N

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2019 results have not been received. Early sampling is recommended.
- The consumer confidence report (CCR) must be delivered to consumers and the Department no later than July 1, 2020, and certification of delivery of the CCR must be submitted to the Department no later than August 10, 2020.
- Monitoring schedules are available on the Central District's Drinking Water site:

https://floridadep.gov/central/central/content/resources-drinking-water-facilities-and-operators-central-district

COMMENTS:

- Contact FRWA (Florida Rural Water Association) at 850-668-2746, or frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

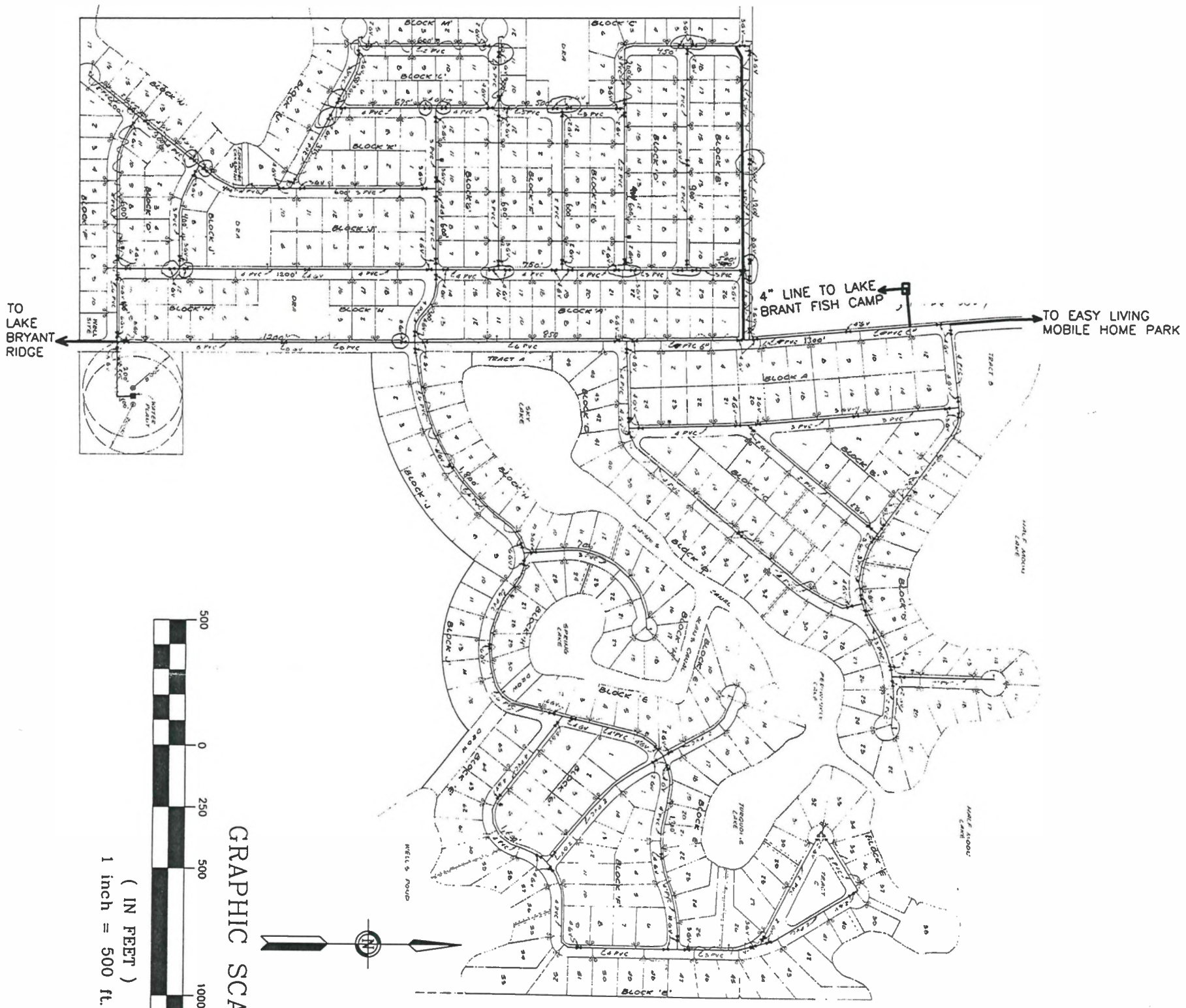
  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]
- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for

more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]

- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

amada fernandez	
Inspector Signature	*Reviewer Signature*
Amada Fernandez	Jill M. Farris
Printed Name	*Printed Name*
Environmental Specialist II	Environmental Manager
Title	*Title*
3/24/20	4/2/20
Date	*Date*

APPENDIX F: DISTRIBUTION MAP



GRAPHIC SCALE

500 0 250 500 1000 2000

(IN FEET)

1 inch = 500 ft.

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FREDERICK BELL CONSULTING ENGINEERS, INC.
OCALA, FLORIDA (904)622-8935

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

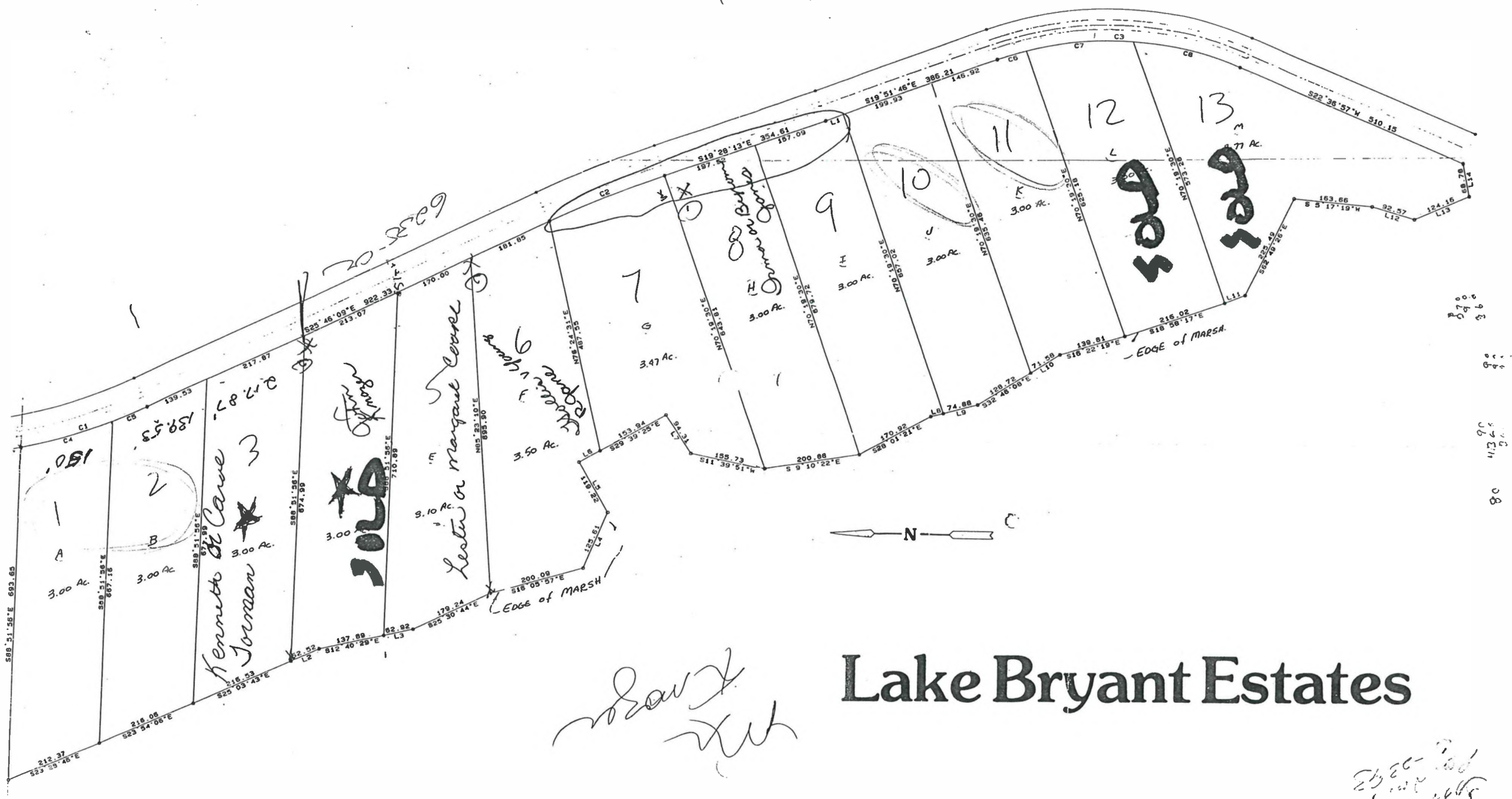
Project No. 9639-02

Sheet 1 Of 1

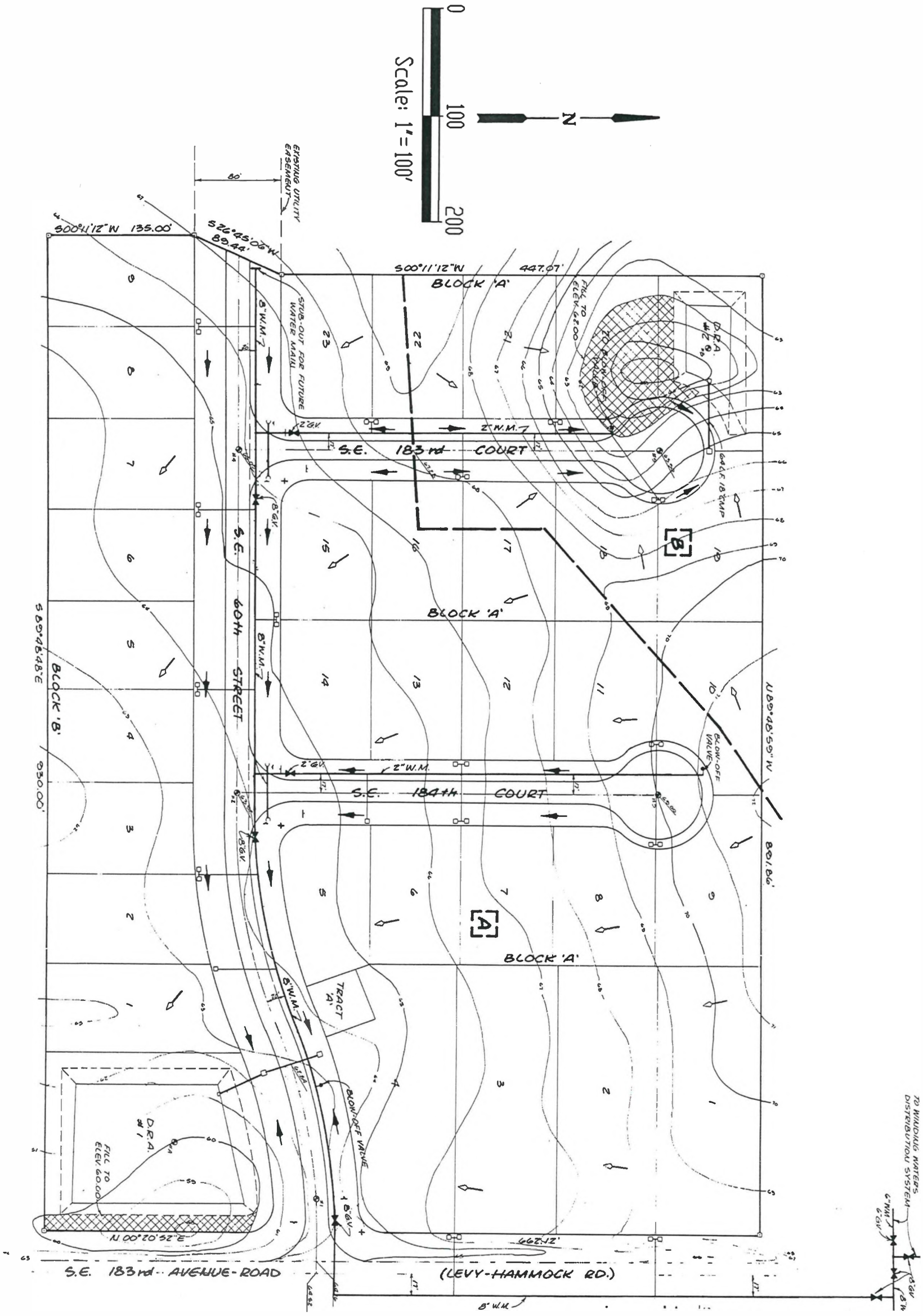
WINDING WATERS

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST, SUITE 502
OCALA, FLORIDA 34471
FAX (352) 840-0580
(352) 840-0774



Lake Bryant Estates



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CONSULTING ENGINEERS INC.
OCALA, FLORIDA

DRN	CHK	DATE	DESCRIPTION
PMM	HWB	11 APR 97	ORIGINAL ISSUE

Project No. 9638-02

1
Sheet 1 OF 1

LAKE BRYANT RIDGE

SUNSHINE UTILITIES INC.
OCALA, FLORIDA

H.W. BARRINEAU & ASSOCIATES, INC.
2100 SOUTHEAST 17th ST, SUITE 602
OCALA, FLORIDA 34471
FAX (352) 840-0580
(352) 840-9774

"LAKE IN THE FORE

PROPOSED 24 UN
MOBILE HOME PA

TY WELL
UED

555.315(5)

SED
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REMOVED EXISTING
2" WATER MAIN
(SEE SHEET #1)

EXISTING
MOBILE HO

"

Easy Livings

"

Urban MHP

SOIL LOG			
U	TYPE	SOIL DESCRIPTION	EWSHWT
	SP	BROWN SAND	84"
	SP-SM	RED COARSE LOAMY SAND	
	SC	RED CLAYEY SAND	
	SC	WHITE CLAYEY SAND	
	SP	BROWN SAND	N/A
	SP-SM	RED COARSE LOAMY SAND	
	SP	BROWN SAND	72"
	SP-SM	RED COARSE LOAMY SAND	
	SP-SM	TAN COARSE LOAMY SAND	

:MATED WET SEASON HIGH WATER TABLE
:OPHER ENGINEERING AIDE, INC.

N

SCALE: 1" = 60'

SWALE INLET TYPE "C"
FLORIDA D.O.T. STANDARD INDEX NO. 232

STORM INLET (TYPE 'C')
GRATE ELEV. 63.90
S.W. INV. ELEV. 61.50

PROPOSED WATER MAIN EXTENSION FROM WINDING WATERS UTILITY SYSTEM

DRA
3' BERM
BOTTOM ELEV. 60.00
4:1 SIDE SLOPES
SEED & MULCH

N00°57'09"E 1301.60'

TBM ELEV. 65.57

18' ROADWAY

35 L.F. 18" CMP

INV. ELEV. 60.00

5' ACCESS TO RECREATION AREA

320.00' STREET

Ordinary Highwater Line Elev. 53.2 (M.S.L.)

Edge of Water

LAKE BRYANT
Water Elev.: 51.04
on 5/18/88

Edge of Water

Ordinary Highwater Line Elev. 53.2 (M.S.L.)

118.5'±

S00°57'09"W 985.54'

1 Story Wood Frame House

Exist. Septic Tank

Exist. Dirt Road

M.H. with Screen Room

Exist. Metal Shed

12"x50' M.H.

10"x50' M.H.

12"x60' M.H.

12"x60' M.H.

4" W.M.

30 L.F. 8" PVC. SAN. SEWER @ 0.4%

SEPTIC & DOSING TANKS
ABSORPTION BED #3

MH #3 S.I. ELEV. 61.00

104 L.F. 8" PVC. SAN. SEWER @ 0.57%

Exist. 4" Well Under Metal Shed

CLEANOUT

420 L.F. 8" PVC SAN. SEWER @ 1.25%

MH #1
RIM ELEV. 71.00
N. INV. ELEV. 67.50

MH #2
RIM ELEV. 65.75
S. INV. ELEV. 62.25
N. INV. ELEV. 62.25
N.W. INV. ELEV. 62.20

RECREATION AREA

PROPOSED 6' PRIVACY FENCE

S89°47'00"E 320.00'

Exist. Dirt Road

EST.
W.M.
G.V.
MH#1
ELEV.
INV.
TBM

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS